

## DECEMBER 2017 QUARTERLY ACTIVITIES REPORT

### HIGHLIGHTS

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- **Black Rock appoints Richard Crookes as Chairman**
  - Respected industry veteran Richard Crookes appointed as Non-Executive Chairman
- **Mahenge premium graphite exceeded industry standards in 300-cycle battery testing**
  - Battery test program passes 300 cycles with a 94% recharge rate
  - Results exceeded the recharge performance of industry standard product
  - 300-cycle benchmark is a consumer product standard, and represents a two-year product life for consumer durables, with full discharge and recharge every second day
- **Black Rock commenced drilling at Mahenge as part of Definitive Feasibility Study and metallurgical drill program**
  - Drill program is designed to define plant performance and product variability from the Ulanzi pit
  - Drilling aims to improve confidence of consistently producing product to customer specification
  - Program will include bulk sampling of 500 tonnes for pilot plant testing in CY2018
- **Perth engineering company CPC Project Design appointed as Engineering Contractor for Definitive Feasibility Study**
  - Scope is for delivery of Definitive Feasibility Study of the first module at Ulanzi and associated infrastructure
  - Work commenced on DFS in January, with first pilot plant run to be completed in CY18 Q1
  - DFS is due Q3 CY18 to enable Black Rock to commence production in late CY19
- **Tanzania progressing positively with mining code**
  - Respected constitutional lawyer, Ms Angellah Kairuki appointed as Mines Minister
  - Subsequent to quarter end, regulations were submitted for Presidential review, and have been made public
  - Impact of proposed changes are still being reviewed, however are anticipated to be negligible as the Optimised PFS (NPV<sub>10</sub> \$USD 905m - \$AUD 1,136m) released in August, provided for a 16% Free Carried Interest, an increase in Royalty rates and is an after tax NPV
- **Black Rock completed \$4.75M capital raising to fund completion of Mahenge DFS with the Company's Directors and advisers participating to the amount of \$540,000**
  - Placement well oversubscribed with support from institutional and sophisticated investors
  - Proceeds will be used to complete DFS

Tanzanian graphite developer Black Rock Mining Limited (BKT: ASX) ("Black Rock" or "the Company") is pleased to release its December 2017 Quarterly report.

### Appointment of Richard Crookes as Chairman

In October, Black Rock Mining announced the appointment of Richard Crookes as Chairman. Mr. Crookes joins Black Rock with 30 years' experience in the resources and investments industry and as such has a unique blend of broad resources industry experience coupled with a successful career in investment management. Mr. Crookes, a geologist by background, is an Investment Director at leading private equity resources fund, EMR Capital, which has successfully raised two funds with more than US\$2 billion of assets and capital under management.

Previous Chairman, Mr Steven Copulos continues in his capacity as a non-executive director.

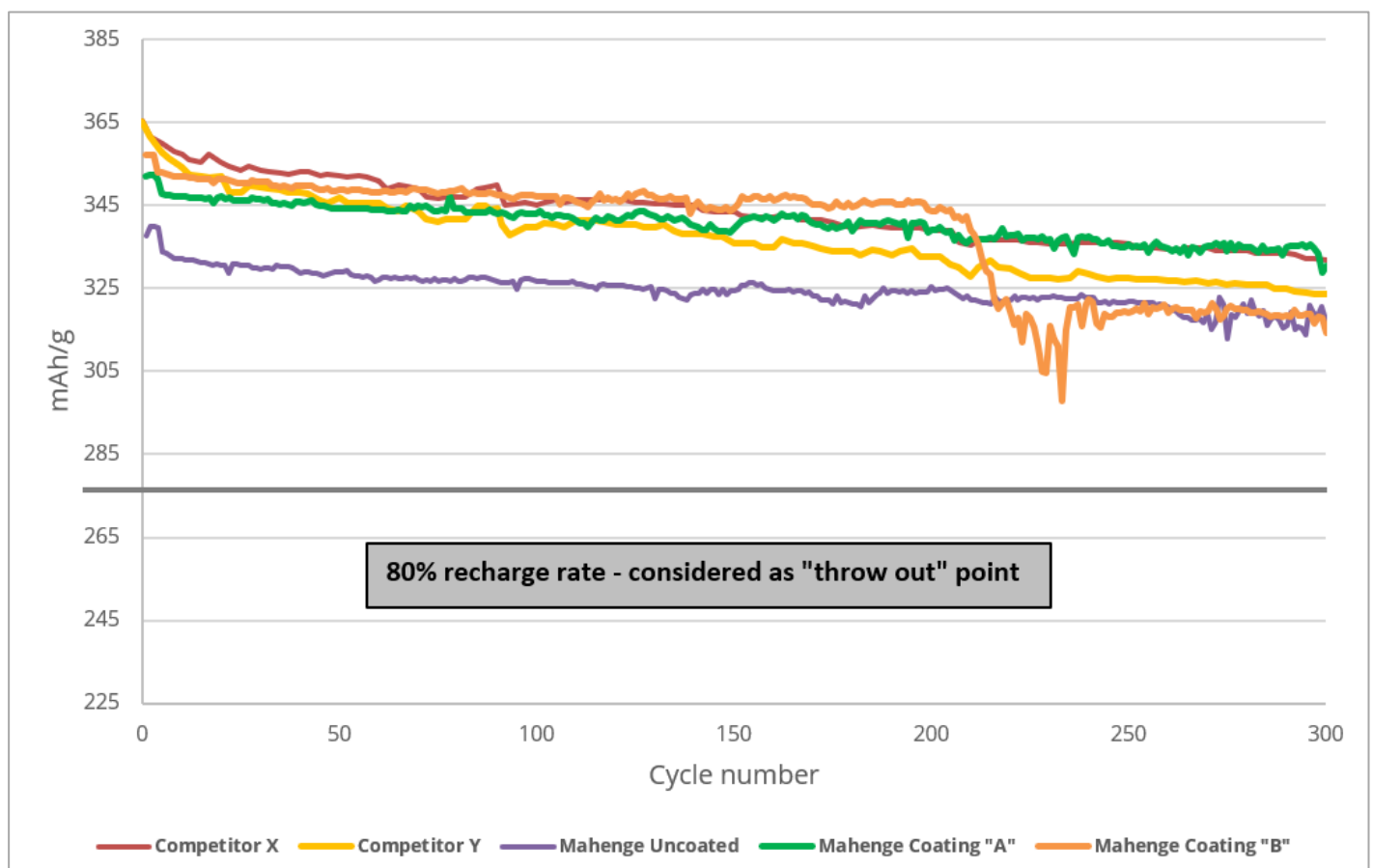
### Battery cycle testing

In November, Black Rock announced long-term battery cycle test work, completed by an independent US ISO-compliant laboratory, on processed graphite anode product from Black Rock's Mahenge Graphite Project had strongly outperformed a leading commercial brand in extended 300-cycle charge/discharge tests.

The results showed a 94% recharge rate (commonly referred to as reversible capacity) over the period, outperforming industry standard products. Importantly, the 300-cycles test is a benchmark for consumer products, as it represents a two-year product life with an assumed full discharge and recharge cycle every second day.

The long-term cell testing builds upon the successful spherical graphite and purification test work showing that the Mahenge Graphite Project spherical graphite has unique positive physical features with potential to improve the stability, battery safety performance and enhance the cycle life of lithium-ion batteries.

Figure 1 - Graph of 300 cycle testing comparing Black Rock's Mahenge graphite performance with industry standards



Black Rock believes it is leading the graphite industry in recognising the importance of the use of long-term cycling data to characterise the sustainability of lithium-ion battery (LiB) performance with the company's graphite. Long-term cycling is a pivotal performance characteristic within the LiB industry, and the Company's electrochemical testing will provide guidance on anode binders, electrolyte composition and anode construction methods used in the test cells. This information is available for LiB manufacturers.

Black Rock's objective in pursuing extended LiB testing is to develop a framework and performance history to support battery manufacturers understand, and utilise the unique performance characteristics of Mahenge natural graphite. To this end, Black Rock will:

- Continue to drive existing cells to destruction
- Complete post mortems on failed cells to better understand failure mechanisms and provide insight into binder, coating and electrolyte mixes that optimise performance of Mahenge premium natural graphite.
- Commence a second round of optimised battery testing using knowledge gained from the first round to further extend performance and reliability of batteries made from Mahenge premium natural graphite.

### **Definitive Feasibility Study drilling commences**

In December, Black Rock commenced drilling a metallurgical sample program as part of a Definitive Feasibility Study (DFS) for its Mahenge Graphite Project. Black Rock expected completion of the planned metallurgical drilling and bulk sampling program at Ulanzi by the end of January 2018.

Following this, Black Rock announced it had appointed CPC Project Design as its Engineering Contractor for the DFS. The scope of the study is for the first Module of Ulanzi, Mahenge and the associated infrastructure. The study is scheduled for completion in the second half of CY2018. Full completion and delivery of the study is subject to and conditional upon Tanzania putting in place its new mining code and regulations.

CPC commenced work on DFS in January. Pilot plant work on stored material will commence in the current quarter. Pilot plant runs better define the likely mill circuit, and provide market samples for distribution to offtakers. The DFS follows a Pre-Feasibility Study completed in April 2017 and an Optimised PFS in August 2017 which confirmed Mahenge's potential as a long-life, low capex, high margin operation. It estimated a post-tax, unlevered, internal rate of return ("IRR") of 45.1%; and a net present value (NPV) using a discount rate of 10% (NPV10) of US\$905m (AUD \$1,137m)

Key assumptions used in the PFS have not materially changed and that the material assumptions continue to apply per the Optimised PFS announcement released to the ASX on 8 August 2017. Black Rock confirms that its optimised PFS allowed for the proposed Tanzanian legislative changes relating to 16% free carry position of the Tanzanian Government and the royalty fee increasing to 4.3%.

### **Tanzania progressing positively with new mining code**

Respected constitutional lawyer, Ms Angellah Kairuki was appointed Mines Minister in October 2017. This appointment is important as Ms Kairuki's background in constitutional law and civil service supports a credible and effective overhaul of the mining code.

Post the current quarter the draft mining code was delivered to the President for internal review and has been released to the investment community. Black Rock is reviewing the amended regulations. We note the withdrawal of Retention Licences. Black Rock's main tenement was renewed for a further 3 years in 2016. The leases were originally granted in 2011 and were acquired by Black Rock in 2014/15 as part of the transition to a Graphite Resources Company.

**CORPORATE***\$4.75M capital raising*

In November, Black Rock successfully raised \$4.2 million through a heavily oversubscribed placement of 70 million new fully paid ordinary shares at \$0.06 per share predominantly to new institutional and sophisticated investors.

Strong demand from institutional investors resulted in an increase of the size of the Placement by an additional \$1.2 million, placing the Company in a strong financial position to complete a DFS for the Mahenge Graphite Project.

Foster Stockbroking Pty Ltd acted as Sole Lead Manager to the Placement.

In addition to the Placement, the Company's Directors and advisors received shareholder approval at a General Meeting on 3 January 2018 to issue 9 million shares, or \$540,000 on the same terms as the Placement.

Completion of the placement gave Black Rock a strong balance sheet with approximately \$5.25 million in working capital.

*Results of AGM*

At the Annual General Meeting of Black Rock Mining shareholders held on 28 November, all resolutions set out in the Notice of Meeting were approved on a show of hands.

*Results of General Meeting*

At a General Meeting held on 3 January 2018, all resolutions set out in the Notice of Meeting were approved on a show of hands.

**For more information:**

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## About Black Rock Mining

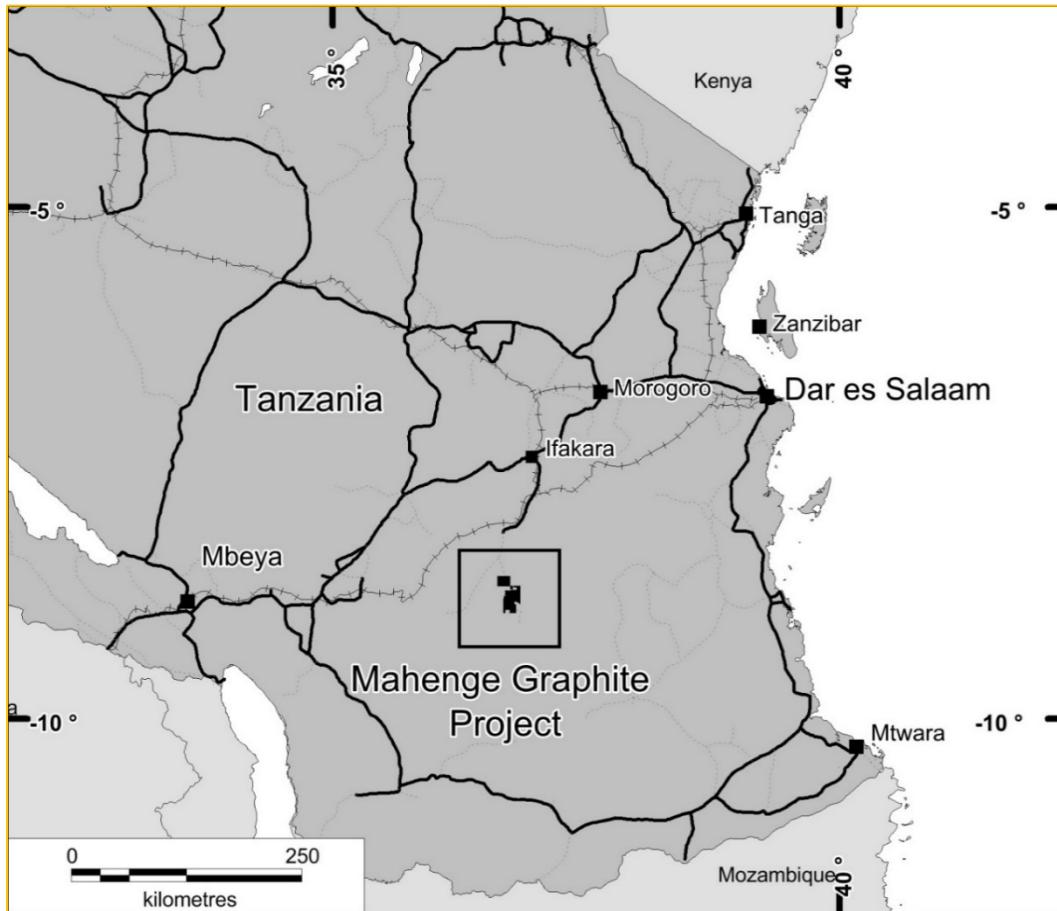
Black Rock Mining Limited is an Australian-based company listed on the Australian Securities Exchange. The Company owns graphite tenure in the Mahenge region of Tanzania.

The Company's 100%-owned Mahenge Graphite Project is one of the largest JORC-compliant flake graphite Mineral Resource Estimates globally, with a Mineral Resource Estimate of 211.9m tonnes at 7.8% TGC for 16.6m tonnes of contained graphite. Importantly, more than 50% of the Mineral Resource is in the Measured and Indicated categories.

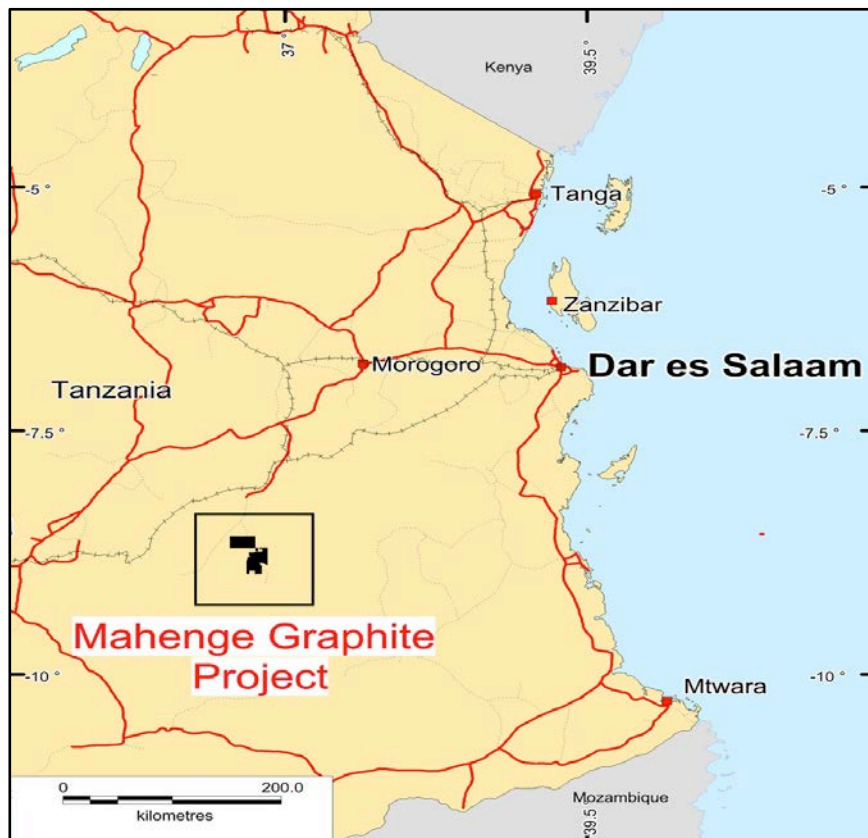
Black Rock released an exceptional optimised Preliminary Feasibility Study (PFS) for the Mahenge Graphite Project, which considered a three-stage construction to deliver up to 250,000 tonnes per annum of 98.5% graphite concentrate for 31 years. The Company plans to fund stages two and three from free cash flow. The pre-production capex is US\$90.1m to deliver a post-tax unlevered project NPV<sub>10</sub> of US\$905m incorporating the proposed 16% Government free carry and increased royalty rate. The optimised PFS confirmed Black Rock has the potential for a long-life, low capex, high margin operation.

Black Rock is moving towards commencing a Definitive Feasibility Study (DFS). Following the successful completion of the DFS and the associated financing, construction is expected to commence late-2018 with first production in 2019.

For further information on the Company's development pathway, please refer to the Company's website at the following link: <http://www.blackrockmining.com.au> and the corporate video presentation at <http://www.blackrockmining.com.au/#video>.



Location of Black Rock's Mahenge Graphite Project within Tanzania



**Appendix 1. Mahenge Graphite Project JORC Mineral Resource, December 2016**

Category	Tonnes (Millions)	TGC (%)	Contained TGC (Millions tonnes)
Measured	21.2	8.6	1.8
Indicated	81.1	7.8	6.4
Inferred	100.7	7.7	7.7
<b>TOTAL</b>	<b>203.0</b>	<b>7.8</b>	<b>15.9</b>

Prospect	Category	Tonnes (Millions)	TGC (%)	Contained TGC (Millions tonnes)
<b>Ulanzi</b>	Measured	13.3	8.9	1.2
	Indicated	48.0	8.2	3.9
	Inferred	50.5	8.0	4.0
	<b>Sub-total</b>	<b>111.8</b>	<b>8.2</b>	<b>9.2</b>
<b>Epanko</b>	Measured			
	Indicated	17.6	6.4	1.1
	Inferred	20.8	5.9	1.2
	<b>Sub-total</b>	<b>38.4</b>	<b>6.1</b>	<b>2.3</b>
<b>Cascades</b>	Measured	7.8	8.0	0.6
	Indicated	15.5	8.4	1.3
	Inferred	29.4	8.4	2.5
	<b>Sub-total</b>	<b>52.8</b>	<b>8.3</b>	<b>4.4</b>
<b>COMBINED</b>	<b>MEASURED</b>	<b>21.2</b>	<b>8.6</b>	<b>1.8</b>
	<b>INDICATED</b>	<b>81.1</b>	<b>7.8</b>	<b>6.4</b>
	<b>INFERRED</b>	<b>100.7</b>	<b>7.7</b>	<b>7.7</b>
	<b>TOTAL</b>	<b>203.0</b>	<b>7.8</b>	<b>15.9</b>

## JORC Compliance Statement

### Resource

The information in this report that relates to Mineral Resources is based on and fairly represents information compiled by Mr Lauritz Barnes, (Consultant with Trepanier Pty Ltd), Mr Aidan Platel (Consultant with Platel Consulting Pty Ltd) and Mr Steven Tambanis (previous Managing Director of Black Rock Mining Limited). Mr Barnes, Mr Platel and Mr Tambanis are members of the Australian Institute of Mining and Metallurgy and have sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Specifically, Mr Tambanis is the Competent Person for the database and geological model, Mr Barnes is the Competent Person for the resource. Both Mr Platel (independent of Black Rock Mining) and Mr Tambanis completed the site inspections. Mr Barnes, Mr Platel and Mr Tambanis consent to the inclusion in this report of the matters based on their information in the form and context in which they appear. Mr Tambanis holds performance rights in the company as part of his total remuneration package.

The information in this report that relates to the Ore Reserve Statement, has been compiled in accordance with the guidelines of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code – 2012 Edition).

### Reserve

The Ore Reserves have been compiled by Oreology Consulting Pty Ltd, under the direction of Mr John de Vries, who is a Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy. Mr de Vries is the interim CEO and an Executive Director of Black Rock Mining and holds performance rights in the company as part of his total remuneration package. Mr de Vries has sufficient experience in Ore Reserve estimation relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves".



## Appendix 5B

# Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

### Name of entity

Black Rock Mining Limited

### ABN

59 094 551 336

### Quarter ended ("current quarter")

31 December 2017

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	0	0
1.2 Payments for		
(a) exploration & evaluation	(368)	(1,041)
(b) development	0	0
(c) production	0	0
(d) staff costs	(180)	(372)
(e) administration and corporate costs	(308)	(662)
1.3 Dividends received (see note 3)	0	0
1.4 Interest received	3	3
1.5 Interest and other costs of finance paid	0	0
1.6 Income taxes paid	0	0
1.7 Research and development refunds	0	0
1.8 Other (provide details if material)	0	0
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(853)</b>	<b>(2,072)</b>

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) property, plant and equipment	(3)	(7)
(b) tenements (see item 10)	0	0
(c) investments	0	0
(d) other non-current assets	0	0

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
2.2 Proceeds from the disposal of:		
(a) property, plant and equipment	0	0
(b) tenements (see item 10)	0	0
(c) investments	228	228
(d) other non-current assets	0	0
2.3 Cash flows from loans to other entities	0	0
2.4 Dividends received (see note 3)	0	0
2.5 Other (provide details if material)	0	0
<b>2.6 Net cash from / (used in) investing activities</b>	<b>225</b>	<b>221</b>

<b>3. Cash flows from financing activities</b>		
3.1 Proceeds from issues of shares	4,200	4,200
3.2 Proceeds from issue of convertible notes	0	0
3.3 Proceeds from exercise of share options	0	0
3.4 Transaction costs related to issues of shares, convertible notes or options	(278)	(278)
3.5 Proceeds from borrowings	0	0
3.6 Repayment of borrowings	0	0
3.7 Transaction costs related to loans and borrowings	0	0
3.8 Dividends paid	0	0
3.9 Other (provide details if material)	0	0
<b>3.10 Net cash from / (used in) financing activities</b>	<b>3,922</b>	<b>3,922</b>

<b>4. Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1 Cash and cash equivalents at beginning of period	855	2,140
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(853)	(2,072)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	225	221
4.4 Net cash from / (used in) financing activities (item 3.10 above)	3,922	3,922
4.5 Effect of movement in exchange rates on cash held	(27)	(89)
<b>4.6 Cash and cash equivalents at end of period</b>	<b>4,122</b>	<b>4,122</b>

<b>5. Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1 Bank balances	4,122	855
5.2 Call deposits	0	0
5.3 Bank overdrafts	0	0
5.4 Other (provide details)	0	0
<b>5.5 Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>4,122</b>	<b>855</b>

**6. Payments to directors of the entity and their associates**

- 6.1 Aggregate amount of payments to these parties included in item 1.2
- 6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

<b>Current quarter \$A'000</b>
180
0

Director related payments – relate to both Executive and Non-Executive Director fees, Corporate and company secretarial fees.

**7. Payments to related entities of the entity and their associates**

- 7.1 Aggregate amount of payments to these parties included in item 1.2
- 7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

<b>Current quarter \$A'000</b>
0
0

## Mining exploration entity and oil and gas exploration entity quarterly report

<b>8. Financing facilities available</b> <i>Add notes as necessary for an understanding of the position</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
8.1 Loan facilities	0	0
8.2 Credit standby arrangements	0	0
8.3 Other (please specify)	0	0
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

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<b>9. Estimated cash outflows for next quarter</b>	<b>\$A'000</b>
9.1 Exploration and evaluation	850
9.2 Development	
9.3 Production	
9.4 Staff costs	150
9.5 Administration and corporate costs	75
9.6 Other (provide details if material)	
<b>9.7 Total estimated cash outflows</b>	<b>1,075</b>

<b>10. Changes in tenements (items 2.1(b) and 2.2(b) above)</b>	<b>Tenement reference and location</b>	<b>Nature of interest</b>	<b>Interest at beginning of quarter</b>	<b>Interest at end of quarter</b>
10.1 Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced				
10.2 Interests in mining tenements and petroleum tenements acquired or increased				

### Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

**Gabriel Chiappini**, Director, 24 January 2018

*Gabriel Chiappini*

**Notes**

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. The Company undertakes that it will disclose the following in each annual report, annual audited accounts, half-yearly report and quarterly cash flow report issued by the Company, in respect of any period during which the Performance Shares remain on issue or are converted or redeemed.
  - (a) The number of Performance Shares on issue during the relevant period.
  - (b) A summary of the terms and conditions of the Performance Shares, including without limitation the number of ordinary shares into which the Performance Shares are convertible and the relevant milestones that have to be satisfied in order for the Performance Shares to be converted.
  - (c) Whether any of the Performance Shares were converted or redeemed during that period.
  - (d) Whether a milestone for the Performance Shares was met during that period.