

31 January 2017

## QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDED 31 DECEMBER 2016

#### **HIGHLIGHTS**

- Infill drill holes continue to intersect wide mineralised zones at Namdini Project
- 23 infill and up dip diamond drill holes completed
- 5 diamond drill holes completed along strike to the south of Namdini deposit
- Down dip step out drilling of Namdini deposit commenced

Cardinal Resources Limited (ASX: CDV) ("Cardinal" or "the Company"), an African gold focused exploration company, is pleased to present to shareholders its Quarterly Activities report for the period ended 31 December 2016. Currently Cardinal holds four tenements within the Bolgatanga Project, with Subranum comprised of a single tenement in central Ghana (Figure 1).

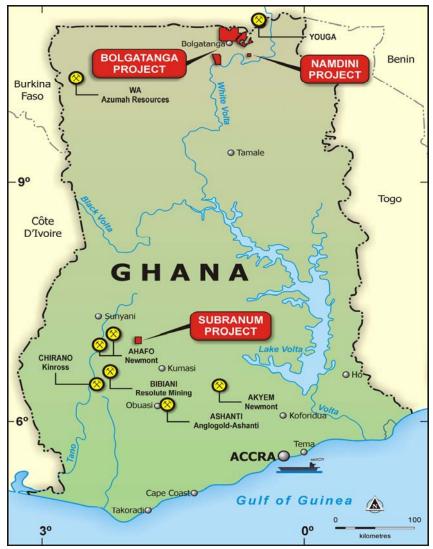


Figure 1: Cardinal Resources Tenements in Ghana



#### **NAMDINI PROJECT**

The Namdini tenement is located ~12 km SE from Cardinal's Ndongo East Prospect and ~6 km SE of the producing Shaanxi Gold Mine (Figure 2).

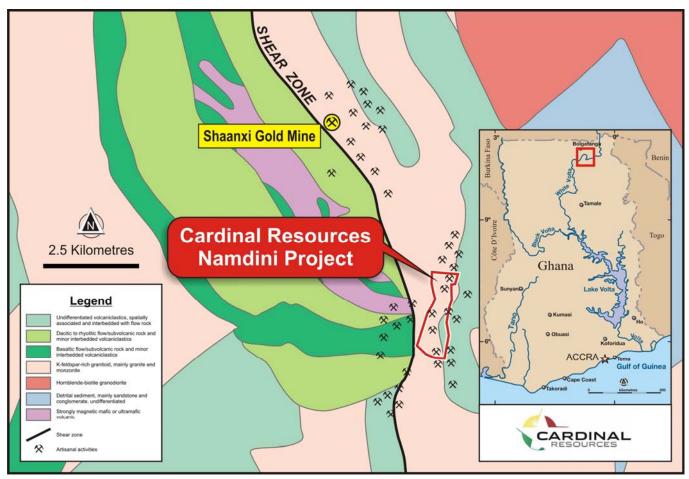


Figure 2: Namdini Project Proximity Map

#### **Diamond Drilling and Sampling Summary**

Infill and up dip diamond drilling continued over the Namdini deposit and along strike to the south during this quarter (Figure 3).

Total drilling for the quarter comprised of 28 drill holes totalling 5,325.08m, with a combined total of 4,959 samples submitted for fire assay, including blanks and standards (Table 1).

**NOTE:** 26 of the 28 drill holes were submitted to SGS Laboratory for analysis during this quarter. The remaining 2 drill holes will be submitted during the following quarter (Q1 2017).

DRILL METHOD	No. Holes	Total (m)	No. Samples	Duplicates	Blanks	Stds	Total Samples
DD Drilling	28	5,325.08	4,734	0	113	112	4,959

Table 1: Namdini Drilling (Q4 2016)

#### Cardinal Resources Limited ABN 56 147 325 620

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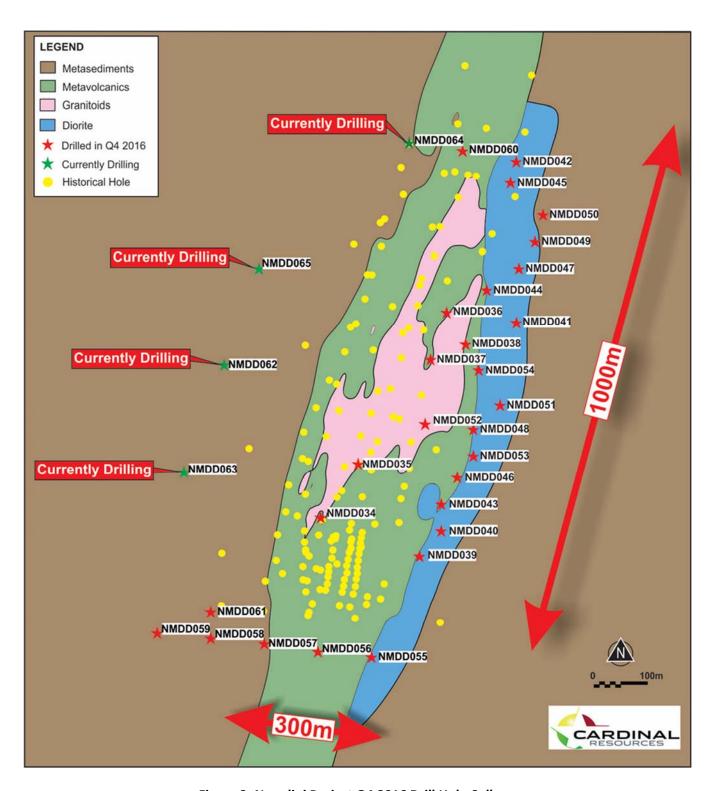


Figure 3: Namdini Project Q4 2016 Drill Hole Collars



#### **Diamond Drilling**

The drill rigs were aligned at -65° dip drilling east which allows for the shallowing of the drill holes with depth. The azimuth was set at 095° instead of 100° (normal to the strike of the formations) as the borehole traces usually deviate to the right with depth due to the clockwise rotation of the drill rods.

The drill holes were surveyed near the top of each drill hole, then every 30m down the hole to determine the dip and azimuth of the drill holes with depth.

The core was orientated at each drill run using a digital instrument. The core was marked showing the base of the drill hole, then the core from each drill run was laid in a length of angle iron to fit the core together so that the orientation line could be drawn along the length of the core at the drill site. Geotechnical parameters were measured using this orientation line as the datum line.

#### **Logging and Sampling**

The core was photographed both dry and wet, then logged lithologically. Weathering, mineralisation and alteration were all captured on a digital tablet for entry into the Cardinal database. A hand held kenometer device was used to measure the geotechnical parameters using the orientation line as a reference.

The core was then cut in half and then quartered. One quarter of the core was consistently sampled at 1 metre intervals, with the remaining three quarters core stored in metal core trays and placed on metal racks under cover in the core shed at Bolgatanga.

The quarter core samples were bagged, weighed, labelled and inserted into polyweave bags for despatch to the laboratory for sample preparation and fire assay. QAQC protocols were observed by inserting in-house blanks and commercial certified reference material (CRM) as standards at every 22<sup>nd</sup> sample.

Bulk density (specific gravity) determinations on selected samples from each lithological unit were continued in house.

The samples are assayed by standard fire assay methods.



#### **Namdini Soil Auger Drilling**

During Q2 2016 Gradient Array Induced Polarisation and Ground Magmetic surveys were completed over a 24 sq km area around Namdini (Figure 4).

Soil auger drilling was completed during this quarter utilising the same grid lines for shallow soil sampling over the accessible areas within this 24 sq km area.

The geochemical results will be combined with the ground geophysical interpretations to delineate drill targets to extend and further enhance the gold potential of the Namdini area.

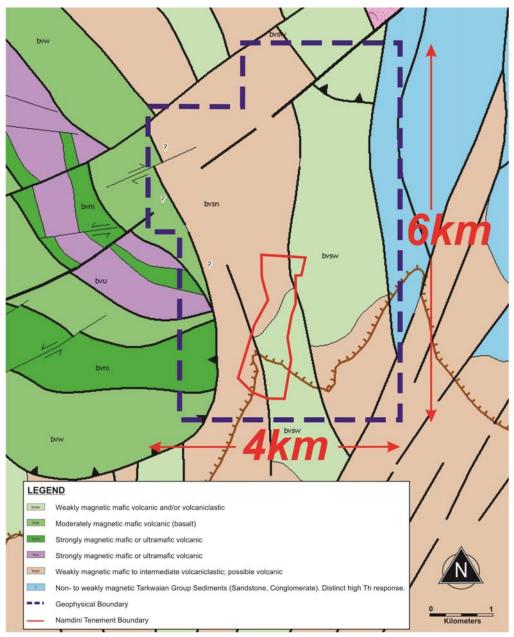


Figure 4: Auger Drilling utilising Ground Geophysical Survey Grids over Namdini

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#### **BOLGATANGA PROJECT**

#### **NDONGO PROSPECT**

#### **Ndongo Far East Prospect**

The airborne geophysical survey over the Ndongo Tenement identified a magnetic body intruded into the low pressure dilation zone around the southern and SE margins of the Pelungu Granite (Figure 5).

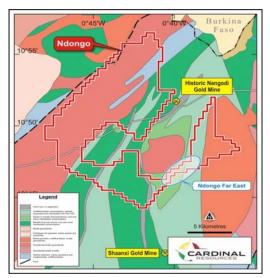


Figure 5: Ndongo Far East Prospect

Previous geochemical sampling in this area delineated anomalous gold-in-soil values around the margins of this magnetic intrusive, which constitutes a target area for more exploration.

During Q2 2016 Gradient Array Induced Polarisation (GAIP) and Ground Magnetic (GMAG) ground geophysical surveys were completed over 4 sq km of this target area which should indicate whether any gold-bearing sulphides are developed around the margins of this magnetic intrusive (Figure 6).

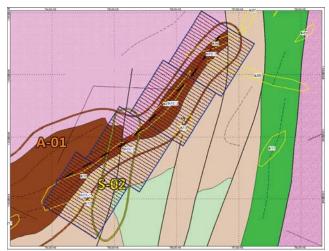


Figure 6: Ground Geophysical Survey Area over Ndongo Far East Prospect

Soil auger drilling was completed during this quarter utilising the same geophysical grid to further delineate anomalous areas. Results will be combined with the ground geophysical surveys to delineate drill targets.

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#### **KUNGONGO PROSPECT**

The airborne geophysical survey over the Kungongo Prospect delineated two interpreted target areas containing possible mineralised structures (Figure 7).

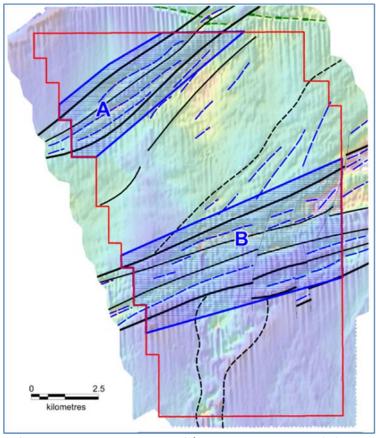


Figure 7: Kungongo – 2013 airborne survey magnetic image with preliminary interpretation and two target zones

Target A occurs over a ~6 km long portion of the SW extension of the regional Bole-Bolgatanga Fault (Shear) Zone which extends over northern Ghana. Target B occurs over a ~7 km long area underlain by Birimian greenstones and granitoids.

During Q2 2016 Gradient Array Induced Polarisation (GAIP) and Ground Magnetic (GMAG) ground geophysical surveys were completed over a 14 sq km area of Target A to delineate possible drilling targets along the shear zone.

A shallow auger drilling programme was completed during this quarter utilising the same GAIP survey grid of 200m line spacings across the entire ~6 km strike length of this shear zone.

The geochemical results will be combined with the ground geophysical results to better define drill targets.



#### **BONGO PROSPECT**

The airborne geophysical survey over the Bongo Prospect delineated six interpreted target areas containing possible mineralised structures (Figure 8).

During this quarter soil auger drilling was completed over Target A. These results will be combined with the airborne geophysical interpretations of this area to generate possible drill targets.

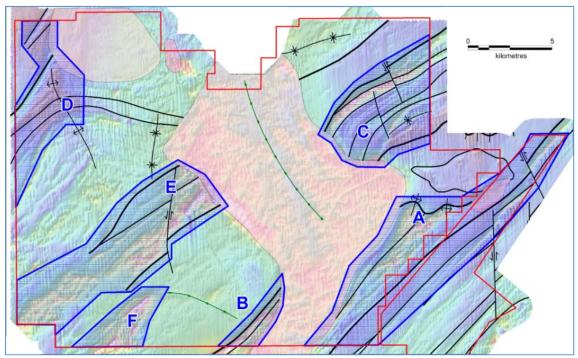


Figure 8: Bongo - 2013 airborne survey magnetic image with preliminary interpretation and six target zones

During this quarter soil auger surveys were also planned over Targets C and D with drilling to be completed during Q1 2017.



#### **SUBRANUM PROJECT**

Previous exploration at Subranum has established that the NE extension to the regional Bibiani Shear Zone is developed for approximately 9 km trending SW-NE across the Subranum tenement (Figure 9).

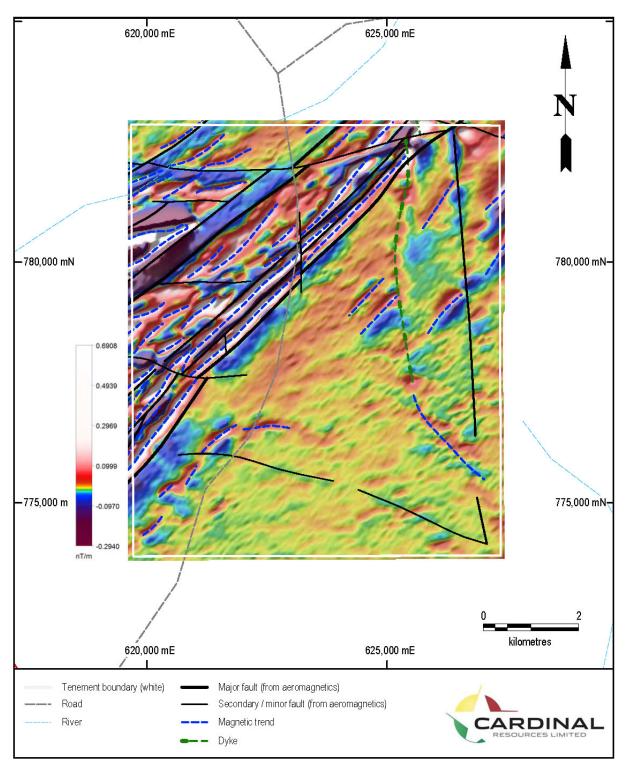


Figure 9: 2013 airborne survey over reduced to pole first vertical derivative magnetic image.

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This previous exploration has extablished a significant NE trending anomalous zone of 5.2 km from the SW boundary. Previous drilling, however, had been on 11 fences of varying distances between 200m to >500m apart.

Cardinal has planned a systematic diamond drilling programme to cover this 5.2 km anomalous strike length to properly evaluate the gold mineralisation contained within this anomalous zone,

Clearing of the previous drill access tracks was continued during this quarter with diamond drilling planned to start during Q1 2017.

A soil auger programme is planned for the remaining 3.8 km strike length in the NE portion of the tenement to initially cover a ~400m width across the strike of the Bibiani Shear Zone. After analysis of these results, either RC or diamond drilling could be planned to further assess any anomalies.

#### **CORPORATE**

On 7 November 2016 the Company advised that Mr Kevin Tomlinson joined the Board as Non-Executive Chairman.

Mr Tomlinson possess over 30 years' experience in Mining and Finance within the Toronto, Australian and London Stock markets. Mr Tomlinson was previously Managing Director of Investment Banking at Westwind Partners/Stifel Nicolous raising equity and providing corporate advice.

Mr Tomlinson has extensive experience in development and financing of mining projects internationally. Previous Directorships include Centamin Plc, an Egyptian gold producer, Orbis Gold, a Burkina Faso gold developer and Medusa Mining, a Philippines gold producer.

As a result of Mr Tomlinson's appointment, Mr Mark Connelly decided to move to Non-Executive Director as his other extensive public commitments intensify. Further Mr Mark Thomas resigned in order to keep the Board size to a minimum allowing for the addition of an experienced development focused Director.

#### **CAPITAL STRUCTURE**

As at the date of this report the Company has following capital structure;

Capital Structure	Listed	Unlisted	Total
Fully Paid Ordinary Shares (CDV)	303,985,944	-	303,985,944
Options Ex. \$0.15 on or before 30 September 2019	116,152,039	-	116,152,039
Options Ex. \$0.22 on or before 18 March 2020	-	8,000,000	8,000,000
- Class A Performance Shares	-	50	50
- Class C Performance Shares	-	60	60

#### **Cash Balance**

The Company's cash balance at 31 December 2016 was approximately \$18.0 million.



#### **TENEMENT SCHEDULE - ASX LISTING RULE 5.3.3**

The following mining tenement information is provided pursuant to ASX Listing Rule 5.3.3. No tenements in part or whole, were relinquished, surrendered or otherwise divested during the quarter ended 31 December 2016.

Tenement	Licence Status	Ref	Note	Interest Acquired During Quarter	Interest Divested During Quarter	Interest Held at End of Quarter
Ghana						
Bolgatanga Project						
Ndongo	Prospecting	PL9/22		-	-	100%
Kungongo	Reconnaissance	RL9/28		-	-	100%
Bongo	Reconnaissance	RL9/29		-	-	100%
Namdini Project						
Namdini	13 SS Mining Licenses		1	-	-	100%
Subranum Project						
Subranum	Prospecting	PL/309		-	-	100%

#### Notes:

1. Namdini Project: Cardinal Mining Services Limited (a subsidiary of Cardinal Resources Limited) acquired 13 Small Scale Licences (the "Namdini Project") through the sale and purchase agreement with Savannah Mining Limited (an affliated company of Cardinal Mining Services). Savannah Mining Limited had applied for a Large Scale Mining License (ML) which was signed by the Minister of Lands and Natural Resources during Q4 2016. The ML is approximately 20sq km in size and is currently being processed by the Ghana Gov't prior to being issued. Savannah Mining Limited is continuing to seek and acquire small scale mining licences within the ML in accordance with its existing contractual arrangements with the Company.

For further information contact:

Archie Koimtsidis Managing Director **Cardinal Resources Limited** P: +233 (0)26 190 5220 Skype: cardinal.archie



#### **JORC 2012**

This ASX announcement contains information extracted from the following reports which are available for viewing on the Company's website <a href="https://www.cardinalresources.com.au">www.cardinalresources.com.au</a>:

• 19 Dec 2016 Namdini Infill and Up-Dip Drilling Results Returned

07 Nov 2016 4 Million Ounce Maiden Resource at Namdini

The Company confirms it is not aware of any new information or data that materially affects the information included in market announcements relating to exploration activities carried out at the Bolgatanga Project and all material assumptions and technical parameters underpinning the exploration activities in those market announcements continue to apply and have not been changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

#### Disclaimer

This ASX announcement ("Announcement") has been prepared by Cardinal Resources Limited (ABN: 56 147 325 620) ("Cardinal" or "the Company").

This Announcement contains summary information about Cardinal, its subsidiaries and their activities, which is current as at the date of this Announcement. The information in this Announcement is of a general nature and does not purport to be complete nor does it contain all the information, which a prospective investor may require in evaluating a possible investment in Cardinal.

By its very nature exploration for minerals is a high-risk business and is not suitable for certain investors. Cardinal's securities are speculative. Potential investors should consult their stockbroker or financial advisor. There are a number of risks, both specific to Cardinal and of a general nature which may affect the future operating and financial performance of Cardinal and the value of an investment in Cardinal including but not limited to economic conditions, stock market fluctuations, gold provide movements, regional infrastructure constraints, timing of approvals from relevant authorities, regulatory risks, operational risks and reliance on key personnel and foreign currency fluctuations.

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#### Not an offer

This Announcement is for information purposes only and does not constitute or form any part of any offer or invitation to sell or issue, or any solicitation of any offer to purchase or subscribe for, any securities in the Company in any jurisdiction. It is not intended to be and is not a prospectus, product disclosure statement, offering memorandum or private placement memorandum for the purpose of Chapter 6D of the Corporation Act 2001. This Announcement and its contents must not be distributed, transmitted or viewed by any person in any jurisdiction where the distribution, transmission or viewing of this Announcement would be unlawful under the securities or other laws of that or any other jurisdiction. This Announcement is not considered a recommendation by the Company or any of its affiliates, directors or officers that any recipient invest in the Company nor does it constitute as any investment, accounting financial, legal or tax advice.

#### Not financial product advice

This Announcement does not contain all information which may be material to the making of a decision in relation to the Company. Recipients of this document should carefully consider whether the securities issued by the Company are an appropriate investment for them in light of their personal circumstances, including their financial and taxation position. No

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#### **Forward-looking statements**

Certain statements contained in this Announcement, including information as to the future financial or operating performance of Cardinal and its projects, may also include statements which are 'forward-looking statements' that may include, among other things, statements regarding targets, estimates and assumptions in respect of mineral reserves and mineral resources and anticipated grades and recovery rates, production and prices, recovery costs and results, capital expenditures, and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions. These 'forward – looking statements' are necessarily based upon a number of estimates and assumptions that, while considered reasonable by Cardinal, are inherently subject to significant technical, business, economic, competitive political and social uncertainties and contingencies, and involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements.

Cardinal disclaims any intent or obligation to update publicly or release any revisions to any forward-looking statements, whether as a result of new information, future events, circumstances or results or otherwise after today's date or to reflect the occurrence of unanticipated events, other than required by the Corporations Act and ASX Listing Rules. The words 'believe', 'expect', 'anticipate', 'indicate', 'contemplate', 'target', 'plan', 'intends', 'continue', 'budget', 'estimate', 'may', 'will', 'schedule' and similar expressions identify forward-looking statements.

All forward-looking statements made in this Announcement are qualified by the foregoing cautionary statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and accordingly investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.

#### No verification

Although all reasonable care has been undertaken to ensure that the facts and opinions given in this Announcement are accurate, the information provided in this Announcement (including information derived from publicly available sources) may not been independently verified.

+Rule 5.5

### **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

Cardinal Resources Limited	
ABN	Quarter ended ("current quarter")
56 147 325 620	31 December 2016

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	- m	-
1.2	Payments for		
	(a) exploration & evaluation	(1,189)	(3,520)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(277)	(452)
	(e) administration and corporate costs	(209)	(620)
1.3	Dividends received (see note 3)		-
1.4	Interest received	27	54
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Research and development refunds	-	-
1.8	Other (provide details if material)	61	(107)
1.9	Net cash from / (used in) operating activities	(1,587)	(4,645)

2.	Cash flows from investing activities		
2.1	Payments to acquire:		
	(a) plant and equipment	(74)	(178)
	(b) tenements (see item 10)	(2,770)	(2,770)
	(c) investments	-	-

<sup>+</sup> See chapter 19 for defined terms

Page 2

Cons	olidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
	(d) other non-current assets	-	-
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10)	-	-
	(c) investments	-	-
	(d) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	(2,844)	(2,948)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of shares	-	21,750
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	50	215
3.4	Transaction costs related to issues of shares, convertible notes or options	_	(1,266)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	_	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	50	20,699

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	22,201	4,865
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,587)	(4,645)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(2,844)	(2,948)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	50	20,699
4.5	Effect of movement in exchange rates on cash held	223	72
4.6	Cash and cash equivalents at end of period	18,043	18,043

<sup>+</sup> See chapter 19 for defined terms

1 September 2016

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	492	4,551
5.2	Call deposits	17,551	17,650
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	18,043	22,201

6.	Payments to directors of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to these parties included in item 1.2	242
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 inc 6.2	cluded in items 6.1 and
N/A		

7.	Payments to related entities of the entity and their associates	Current quarter \$A'000
7.1	Aggregate amount of payments to these parties included in item 1.2	<del>-</del>
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 in 7.2	cluded in items 7.1 and

N/A		

<sup>+</sup> See chapter 19 for defined terms

8.	<b>Financing facilities available</b> Add notes as necessary for an understanding of the position	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
8.1	Loan facilities		-
8.2	Credit standby arrangements	-	-
8.3	Other (please specify)	- I	-

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.

N/A	

9.	Estimated cash outflows for next quarter	\$A'000
9.1	Exploration and evaluation	(1,847)
9.2	Development	_
9.3	Production	-
9.4	Staff costs	(368)
9.5	Administration and corporate costs	(296)
9.6	Other	-
9.7	Total estimated cash outflows	(2,511)

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

<sup>+</sup> See chapter 19 for defined terms

#### **Compliance statement**

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.

Sign here: Sarah Shipway Date: 31 January 2017

**Company Secretary** 

Print name: Sarah Shipway

#### **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.

<sup>+</sup> See chapter 19 for defined terms