

## QUARTERLY REPORT TO 31 JANUARY 2013

### Luirigold Limited

ASX Code: LGM

[www.luirigold.com](http://www.luirigold.com)

### Corporate Structure

Shares on issue	226.80m
Options	21.1m
52 week high	A\$0.135
52 week low	A\$0.026

Cash (as at 31 January)  
A\$1.9m

### Company Directors

**Melissa Sturgess**  
Executive Chairman

**Evan Kirby**  
CEO/Technical Director

**Mike Langoulant**  
Executive Director

**Robert Brown**  
Non-Executive Director

### HIGHLIGHTS OF THE QUARTER

#### Dunrobin Gold Project, Zambia

- New resource estimate by Coffey Mining delivers Measured Resource:  
978,000 tons @ 2.6 g/t for 81,000 ounces gold  
(42% of ounces now in Measured Category);
- Feasibility studies confirm a technically feasible and economically robust project with an ungeared IRR of 37% and NPV (at 7.5% real discount rate) of US\$24.9m
- Gold production forecast to be 85,000 ounces over an 8 year mine life with life of mine head grade of 2.61g/t
- Total revenues of US\$137m and net pre-tax, post-royalty profits of US\$48m based on gold at US\$1550/oz
- Detailed metallurgical studies support a 90% average gold recovery and enhances knowledge of metallurgical treatment characteristics
- Independent Geotechnical assessment offers possible scope for reduced stripping ratio
- Debt funding negotiations advancing
- Capacity building with the Shakumbila Trust to assist in the development of local projects as part of the company's corporate social responsibilities.

#### Corporate

- Capital raising via placement and partly underwritten rights issue secures minimum \$2 million to a maximum of \$4.2 million
- Cash on hand at quarter end was A\$1.9 million.

For further information please contact:

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**Luir Gold Limited (ASX:LGM)**, (“Luir” or the “Company”) a Zambian located gold exploration and development company, is pleased to announce its Quarterly Activities Report for the 3 months ended 31 January 2013.

## **LUIRI HILL GOLD PROJECT**

### **Dunrobin Final Feasibility Study**

During the Quarter, the Company completed its feasibility study for the fast-track development of an open pit mine and processing operation at Dunrobin. The Dunrobin Feasibility Study confirms a technically feasible and economically robust project with an ungeared IRR of 37% and NPV (at 7.5% real discount rate) of US\$24.9m based on a gold price of US\$1550 per ounce. Over an operating life of eight years, the project generates total revenues of US\$137m, and pre-tax, post royalty profits of US\$42m.

The final feasibility study is based on the November 2012 measured, inferred and indicated resource estimate together with a pit optimisation and mine scheduling work by Coffey Mining. Important output parameters from the pit optimisation were as follows:

- Life of mine quantity of plant feed 1 128 300 tons
- Head grade to plant 2.61 g/t gold
- Gold production over life of mine 85 082 oz
- Open cast mining stripping ratio 4.35:1

These parameters were very significantly improved compared with the Company’s preliminary studies. Specifically, the ounces fed to the plant have increased by 40%, the tonnage of plant feed by 27% and the head grade by 10%.

Financial modelling based on these production parameters gave an average LOM cash cost of production of US\$ 790 per ounce (excluding royalties), and a breakeven gold price of US\$ 1108 per ounce.

### **Dunrobin Resource Estimate**

In November 2012 the Company announced that a JORC compliant Measured Indicated and Inferred Resource had been defined at Dunrobin. (Refer ASX announcement 26 November 2012). The new Resource at Dunrobin as defined by Coffey Mining is outlined in the table below.

Dunrobin Deposit - Summarized Resource Estimate Reported at 1 g/t Gold Cut-Off				
	Lower Cut-Off Grade (g/t Au)	Tonnes (000’s)	Average Grade (g/t Au)	Ounces (000’s)
Measured	1.0	978	2.6	81
Indicated	1.0	1,063	2.0	69
Inferred	1.0	763	1.8	43

Subsequently Coffey Mining undertook a pit optimisation exercise based on;

- The geological database used for the November 2012 Resource Estimate
- Capital and operating costs (an updated estimate from Luir)

- Gold recovery 90% (a revised estimate by Luri based on testwork results and process considerations)
- Gold price US\$ 1550 per ounce

Based upon the above assumptions a pit shell that maximises project NPV was designed which also generated a schedule of annual tonnages and grades of ore over the life of the mine. The output of this work has been used in the Company's Final Dunrobin Feasibility Study.

### **Project Development – Debt Funding**

The Company has advanced its negotiations with a number of different institutions aimed at providing a minimum of \$10 million in debt funding for the Dunrobin project. These negotiations are on-going and the Company is hopeful of making a more definitive announcement in regard to this matter during the April quarter.

### **Additional Metallurgical Information**

Since quarter end, the Company has received the results of detailed metallurgical studies undertaken during the January quarter. These additional studies support a 90% average gold recovery estimate for the Dunrobin ore and has significantly enhanced the Company's knowledge of the metallurgical treatment characteristics of the Dunrobin ore. (Refer ASX announcement of 27 February 2013.)

AMMTEC Laboratories of Perth Australia performed the supplementary metallurgical testwork on cyanide leaching, copper precipitation and cyanide recovery. However, the bulk of the additional metallurgical testwork was incorporated in the analysis work performed on the exploration drilling samples by Genalysis, an international analytical company. All samples from the infill drilling were fire assayed for gold then samples containing more than 0.5 g/t gold were subject to the following tests:

- Multi-element analysis (for arsenic, sulphur, copper, silver, and other elements),
- Bottle-roll leach tests for cyanide soluble gold, acid soluble copper, and cyanide soluble copper.

Altogether, over 500 samples from the Dunrobin infill drilling have been subject to this extended analytical work and the results have provided valuable information on the geo-metallurgy of the ore body.

Some samples did show poor leach characteristics and the locations of such samples have been tracked by the geological software. However, an important conclusion was that the average gold dissolution was excellent and was not affected by increasing depth to the maximum depth achieved by the infill drilling. The average 90% gold recovery used in the study is considered very realistic and possibly slightly conservative.

### **Review of the Metallurgical Plant Design and Costs**

During the latter portion of 2012, Consulmet Metals reviewed all aspects of the metallurgical plant design and updated the process flow diagrams, mass balances and water balance. Equipment selection and sizing was also reviewed. Plant layouts were developed, an implementation plan drawn up, and updated cost estimates were prepared.

The plant flow sheet incorporates SART (Sulfidisation, Acidification, Recycle and Thickening) process technology to recover cyanide from the gold recovery tailings. This process is considered well proven with several installations world wide, including at Telfer Gold Mine in Western Australia. The flow sheet proposed for Dunrobin is similar to that used at Telfer’s pyrite concentrate leach circuit. Experience and expertise from the Telfer project is available to Luiria via Perth based consultants.

### **Geotechnical Assessment**

Luiria retained the services of African Mining Services (AMC) Ltd to carry out a geotechnical investigation at the Dunrobin Project. The objective of the study was to make recommendations for a safe geotechnical mining environment and to validate the assumptions made by Coffey Mining Pty Ltd in their open pit mine design, which was the basis of the preliminary feasibility studies. The fact that there is already an open pit mine at Dunrobin with existing exposure that has been standing now for in excess of 12 years is a significant advantage as it allows direct observation of existing faces and benches. AMC used mapping techniques of this exposure along with diamond core logging to provide an independent feasibility pit slope stability assessment for mine design and economic evaluation.

AMC confirmed that the Coffey Mining design parameters used in the initial scoping level study were sound and that with further limited geotechnical investigation ahead of mine construction it would be possible to optimize the design to reduce slope angles.

### **Matala Scoping Study**

The Company released its scoping study for the Matala Deposit towards the end of the quarter, based on a scoping level underground mining study prepared by Coffey Associates’ Johannesburg office. This study document gives details of the sub-level long-hole open stoping (SLOS) mining method, and presents a breakdown of capital and operating costs and a schedule of annual tons mined, mining costs and grade.

The mining was based on an ordinary Kriging geological model prepared using data from the Matala geological database. The cut off grade was raised to 1.6 g/t after consideration of the mining method and costs. A vein like model, typical of greenstone mining was created. Most of the Inferred Mineral Resource defined in the MIK model was not included because of the high cut off applied and the mining method planned. Work is continuing to define the change-over between the Matala open pit mining and underground mining.

The processing information used in the study is based on the latest plant flowsheet for Dunrobin, with costs scaled to the higher throughput. A recovery of 90% has been used based on a reinterpretation of the 2010 testwork, and the new flowsheet which recovers cyanide from the gold tailings and produces a by-product copper concentrate.

Hambo Dato Services prepared the financial model using current prices for all consumables (power, water, reagents, fuel) whilst labour costs were based on Zambian rates. Financial modelling indicates that the Matala Gold Project is robust and will provide attractive returns.

Key parameters from the financial modelling are as follows:

Capex	US\$ 48m
IRR	30% ungeared
NPV @ 7.5%	US\$ 34.6m
Mining Cost	US\$ 42 /ton

Processing Cost	US\$ 29 /ton
Tailings Cost	US\$ 2.5 /ton
Overheads Cost	US\$ 2 /ton
Cash cost	US\$ 844 /oz
Breakeven gold price	US\$ 1,187 /oz
Feasibility gold price	US\$ 1,550 /oz
Production Statistics	
Gold Production	176,000 oz
Life of Mine	9 years
Mining Method	Sub-level long-hole open stoping, decline access
Feed Grade	3.00 g/t
Gold Recovery	90%
Tons of Ore Processed	2.034 million tons over life of mine

#### **Development Schedule and Projected Cash Flow**

The scoping study assumed that the development of Matala would commence in 2015 when the Dunrobin Project has reached full production and would ultimately bring the Company's combined gold output from the 2 mining operations to around 40-50,000 ounces per annum. Capital costs for development and construction at Matala would be spread over 2015 and 2016. Free cash from Dunrobin could be used to reduce external funding requirements.

#### **Planned Optimisation Work and Feasibility Study**

Following the positive outcome of the scoping study, additional work is planned for Matala. The first step will be comparative studies to optimise the mining and processing details; this will be followed by additional work to improve the level of project definition. Alternative such as shallow open pit mining, followed by underground mining are to be considered. The economics of expanding the Dunrobin processing plant will also be compared with building a new plant at Matala.

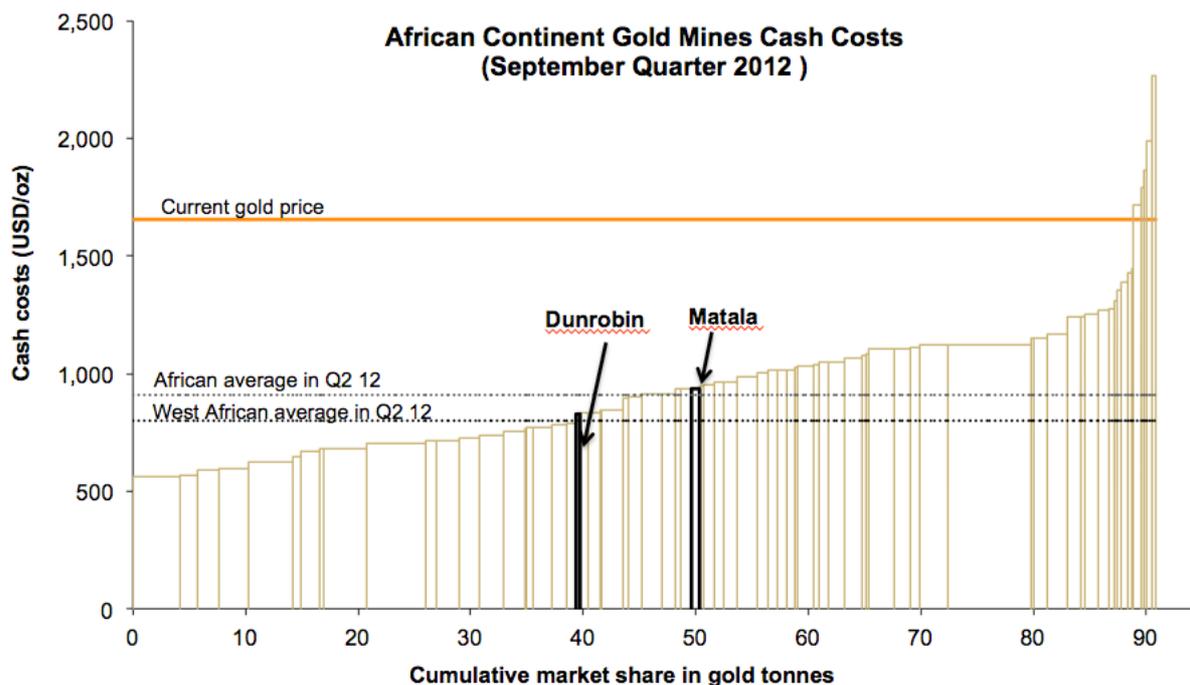
The final feasibility study will include additional drilling to prove a portion of measured resource, additional testwork, environmental permitting, and more definitive mining and processing studies.

The Matala mineral resource is open on strike and to depth so there is potential for resource growth from additional drilling. In addition to this, there are a number of other occurrences of Matala style mineralisation, which have yet to be drilled.

#### **Comment on the Gold Price used for the Feasibility Study**

Choice of the gold price to be used for a feasibility study is always difficult. Consideration involving comparisons with operating mines can be helpful in this regard. In an operating mine, the mine planning is dynamic and responds to the prevailing gold price and management's views on the short to medium term future of the gold price.

As the gold price goes up, mine planning will allow for the inclusion of lower grade zones in the resource and will allow higher costs for waste handling and mine development work. As a result of these factors, the industry average cost of production increases as the gold price rises and at the same time, stated ore reserves (and mineral resources) increase. The converse is true when the gold price falls; most mines will remain economical, albeit whilst mining higher grades, doing less waste handling and minimising mine development. LGM's view is that for a feasibility study, an appropriate choice of a gold price would drive the cost of production into the same range as that of currently operating mines. With a gold price of US\$ 1550 per ounce used in the feasibility studies, this is indeed the case as shown below.



Notes: Costs for Dunrobin & Matala based on life-of-mine averages including by-product credits & royalties  
 73 African mines  
 Source: Company Reports, CRC Consulting

As is the case with operating mines, decreasing the gold price for feasibility mine planning results in higher grade ore being mined, as well as lower costs per ton mined and also a decrease in the proportion of the mineral resource that can be mined at a profit

## CORPORATE SOCIAL RESPONSIBILITY

Luirigold engaged GDM Africa to help facilitate the development of a company framework and policies in terms of its corporate social responsibilities (CSR). Key to this has been the establishment of the Shakumbila Trust to which the Company has committed to make a significant contribution. To enable the Trust to operate effectively GDM Africa undertook a variety of projects including a Community Needs Assessment, Job Creation and Skills Development Plan and a Community Development overview. In addition this work will direct the Company and the Trust in the development of their CSR policies. It will also build capacity of the overseeing administrative committees to help best meet the needs of the local communities likely to be affected most by the Company's mining operations.

As part of this work GDM Africa consultants spent a significant amount of time with local people and organisations including a two-day workshop with members of the local community committee and the Shakumbila Board of Trustees. The purpose of this was to develop an understanding of community needs and to develop the necessary skills to prioritize local projects, and to develop and administer budgets.

In anticipation of a fully functioning Trust and committee, these skills are being tested on existing, but incomplete, projects where budgets are being developed and administered for an animal dip tank, school teachers' housing and classroom.

In addition to this, the Company has begun a program of sensitization of local people to project development including holding a site open-day where an estimated 1,000 people attended including the Senior Chief Shakumbila, local government officials and dignitaries. This demonstrated considerable interest and support for Luirigold's mine site development in the area.

The Company is working very closely with the Senior Chief Shakumbila who is retained as a consultant and advises on local issues relating to community needs and other matters. He is the local and respected traditional leader within whose chieftom the Company operates and is a member of the House of Chiefs, a nonpolitical but influential organization whose principal remit is to advise Government on traditional affairs.

The CSR work that the Company is undertaking aims to meet World Bank standards, Equator Principles, and meets all minimum requirements of Zambian legislation. Conformance with the Equator Principles is intended to provide potential financiers with a minimum known standard for due diligence to support responsible risk decision making.

## CORPORATE

During the quarter the Company completed a placement raising \$881,000, while directors have committed to subscribe for a further \$460,000 (subject to shareholder approval). In addition the Company has announced a partly underwritten 1:2 rights issue at an issue price of \$0.03. The combination of the completed placement, the director conditional placement and the underwritten portion of the rights means the Company will raise a minimum of \$2 million from this capital raising exercise.

The rights issue closes on 12 March 2013 following which a shareholder meeting will be called to approve the director conditional placement.

Cash on hand at the quarter end was \$1.9 million (which includes \$730,000 in placement proceeds for which shares were issued in February).

## About Luir Gold Ltd

Luir Gold Limited is a gold exploration and development company that holds 2 mining licences in Zambia that cover the historic Dunrobin and Matala gold deposits. Coffey Mining Pty Ltd of Perth have estimated the current Multiple Indicator Kriging derived open pit gold resource at the Matala and Dunrobin deposits to be a combined (Measured, Indicated plus Inferred) resource of 10.53 million tonnes at 2.2 g/t Au, for 761,000 ounces of gold reported at a cut-off of 1.0 g/t. Refer to the table below.

Luir Hill Gold Project				
Summarized Resource Estimate Reported at 1 g/t Gold Cut-Off				
Matala Deposit				
	Lower Cut-Off Grade (g/t Au)	Tonnes (000's)	Average Grade (g/t Au)	Ounces (000's)
Indicated	1.0	3,204	2.7	278
Inferred	1.0	4,525	2.0	290
Dunrobin Deposit				
	Lower Cut-Off Grade (g/t Au)	Tonnes (000's)	Average Grade (g/t Au)	Ounces (000's)
Measured	1.0	978	2.6	81
Indicated	1.0	1,063	2.0	69
Inferred	1.0	763	1.8	43
Matala and Dunrobin Deposits Combined				
	Lower Cut-Off Grade (g/t Au)	Tonnes (000's)	Average Grade (g/t Au)	Ounces (000's)
Measured	1.0	978	2.6	81
Indicated	1.0	4,267	2.5	347
Inferred	1.0	5,288	2.0	332

### Competent Persons

*The information in this report that relates to both the Dunrobin and Matala Mineral Resources is based on information compiled or supervised by Mr Ingvar Kirchner who is a Fellow of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr Kirchner is employed by Coffey Mining and has reviewed this report and consents to the inclusion, form and context of the relevant information herein as derived from the original resource reports. Mr Kirchner has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being undertaken to qualify as Competent Persons as defined in the 2004 Edition of the JORC 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.*

*The technical exploration and mining information contained in this report has been reviewed and approved by Mr C White B Sc (Hons) in Applied Geology, General Manager for Luir Gold Limited. Mr White has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity to which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr White is an Employee of Luir Gold Limited and is a Member of the Institute of Materials, Minerals and Mining. Mr White consents to the inclusion in this report of such information in the form and context in which it appears.*

# Appendix 5B

## Mining exploration entity quarterly report

Introduced 1/7/96. Origin: Appendix 8. Amended 1/7/97, 1/7/98, 30/9/2001.

Name of entity

LUIRI GOLD LIMITED

ACN

139 588 926

Quarter ended ("current quarter")

31 January 2013

### Consolidated statement of cash flows

Cash flows related to operating activities	Current quarter \$A'000	Year to date (3 months) \$A'000
1.1 Receipts from product sales and related debtors	-	-
1.2 Payments for (a) exploration and evaluation	(924)	(924)
(b) development	-	-
(c) production	-	-
(d) administration	(307)	(307)
1.3 Dividends received	-	-
1.4 Interest and other items of a similar nature received	20	20
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Other (provide details if material)	-	-
<b>Net Operating Cash Flows</b>	<b>(1,211)</b>	<b>(1,211)</b>
<b>Cash flows related to investing activities</b>		
1.8 Payment for purchases of: (a)prospects	-	-
(b)equity investments	-	-
(c) other fixed assets	-	-
1.9 Proceeds from sale of: (a)prospects	-	-
(b)equity investments	-	-
(c)other fixed assets	-	-
1.10 Loans to other entities	-	-
1.11 Loans repaid by other entities	-	-
1.12 Other (provide details if material)	-	-
Tenement Expenditure Guarantee (refundable)	-	-
<b>Net investing cash flows</b>	<b>-</b>	<b>-</b>
1.13 Total operating and investing cash flows (carried forward)	<b>(1,211)</b>	<b>(1,211)</b>

+ See chapter 19 for defined terms.

**Appendix 5B**  
**Mining exploration entity quarterly report**

1.13	Total operating and investing cash flows (brought forward)	(1,211)	(1,211)
<b>Cash flows related to financing activities</b>			
1.14	Proceeds from issues of shares, options, etc. <i>Placement subscriptions were received into the Company bank account during the quarter but the relevant shares were not issued until February (Refer announcement of February 8, 2013)</i>	730*	730*
1.15	Proceeds from sale of forfeited shares	-	-
1.16	Proceeds from borrowings	-	-
1.17	Repayment of borrowings	-	-
1.18	Dividends paid	-	-
1.19	Other (share issue costs)	-	-
	<b>Net financing cash flows</b>	730	730
	<b>Net increase (decrease) in cash held</b>	(481)	(481)
1.20	Cash at beginning of quarter/year to date	2,429	2,429
1.21	Exchange rate adjustments to item 1.20	(3)	(3)
1.22	<b>Cash at end of quarter</b>	1,945	1,945

**Payments to directors of the entity and associates of the directors**

**Payments to related entities of the entity and associates of the related entities**

		Current quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	134
1.24	Aggregate amount of loans to the parties included in item 1.10	-

1.25 Explanation necessary for an understanding of the transactions

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**Non-cash financing and investing activities**

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

Nil
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2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

Nil
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+ See chapter 19 for defined terms.

### Financing facilities available

Add notes as necessary for an understanding of the position.

	Amount available \$A'000	Amount used \$A'000
3.1 Loan facilities	-	-
3.2 Credit standby arrangements	-	-

### Estimated cash outflows for next quarter

	\$A'000
4.1 Exploration and evaluation	300
4.2 Development	-
4.3 Production	-
4.4 Administration	300
<b>Total</b>	<b>600</b>

### Reconciliation of cash

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.

	Current quarter \$A'000	Previous quarter \$A'000
5.1 Cash on hand and at bank	175	286
5.2 Deposits at call	1,770	2,143
5.3 Bank overdraft		
5.4 Other (provide details)		
<b>Total: cash at end of quarter</b> (item 1.22)	<b>1,945</b>	<b>2,429</b>

### Changes in interests in mining tenements

	Tenement reference	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1	Interests in mining tenements relinquished, reduced or lapsed	-	-	-
6.2	Interests in mining tenements acquired or increased	-	-	-

+ See chapter 19 for defined terms.

**Appendix 5B**  
**Mining exploration entity quarterly report**

**Issued and quoted securities at end of current quarter**

*Description includes rate of interest and any redemption or conversion rights together with prices and dates.*

	Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1 <b>Preference +securities</b> <i>(description)</i>				
7.2 Changes during quarter (a) Increases through issues (b) Decreases				
7.3 <b>+Ordinary securities</b>	197,431,905	197,431,905		Fully Paid
7.4 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs				
7.5 <b>+Convertible debt securities</b> <i>(description)</i>				
7.6 Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7 <b>Options</b>	100,000 100,000 100,000 8,800,000 12,000,000		<i>Exercise price</i> AUD\$0.45 AUD\$0.60 AUD\$0.85 AUD\$0.17 AUD\$0.10	<i>Expiry date</i> 01/04/2015 01/04/2015 01/04/2015 30/06/2015 30/06/2015
7.8 Issued during quarter:				
7.9 Exercised during quarter				
7.10 Expired during quarter				
7.11 <b>Debentures</b> <i>(totals only)</i>				
7.12 <b>Unsecured notes</b> <i>(totals only)</i>				

+ See chapter 19 for defined terms.

## Compliance statement

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX (see note 4).
- 2 This statement does give a true and fair view of the matters disclosed.



Sign here:

Date: 28 February 2013

(Company Secretary)

Michael Langoulant

## 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 wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 The definitions in, and provisions of, *AASB 1022: Accounting for Extractive Industries* and *AASB 1026: Statement of Cash Flows* apply to this report.
- 5 **Accounting Standards** ASX will accept, for example, the use of International Accounting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

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