

# Top End Minerals Ltd

ABN 48 124 943 728

31 October 2013

Manager Companies  
Australian Securities Exchange  
Level 6, 20 Bridge Street  
Sydney NSW 2000

*By E-Lodgement*

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## REPORT FOR THE QUARTER ENDED 30 September 2013

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Top End Minerals Limited  
ABN 48 124 943 728

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*Directors*

**Mr Joseph Gutnick**

Executive Chairman and Chief  
Executive Officer

**Mr Peter Lee**

Director, CFO & Company  
Secretary

**Mr Menachem Vorchheimer**

Director

*Senior Management*

**Mr Mike Kammermann**

Exploration Manager

### OVERVIEW

#### Arnhem Land

- Ground gravity survey completed over mineralised outcrop which has previously returned rock chip values of up to 3.3% zinc, 0.63% lead and 10.3ppm silver.
- The gravity survey has identified several targets for further exploration. The mineralisation styles being targeted are carbonate hosted base metal deposits such as Mississippi Valley Type.



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Top End Minerals Ltd (ASX: TND) is a diversified mineral explorer, which controls through farm-in arrangements with Merlin Diamonds Ltd (ASX: MED), one of the largest portfolios of highly prospective exploration tenements in the Northern Territory, Australia. The Company has mineral rights other than diamonds.

## **ARNHEM LAND BASE METALS PROJECT**

The Company's base metals project is located in Arnhem Land on granted tenement EL26206 (Figure 1). Exploration by the Company has identified a 1km by 1.5km zone returning rock chip values of up to 3.3% zinc, 0.63% lead and 10.3ppm silver.

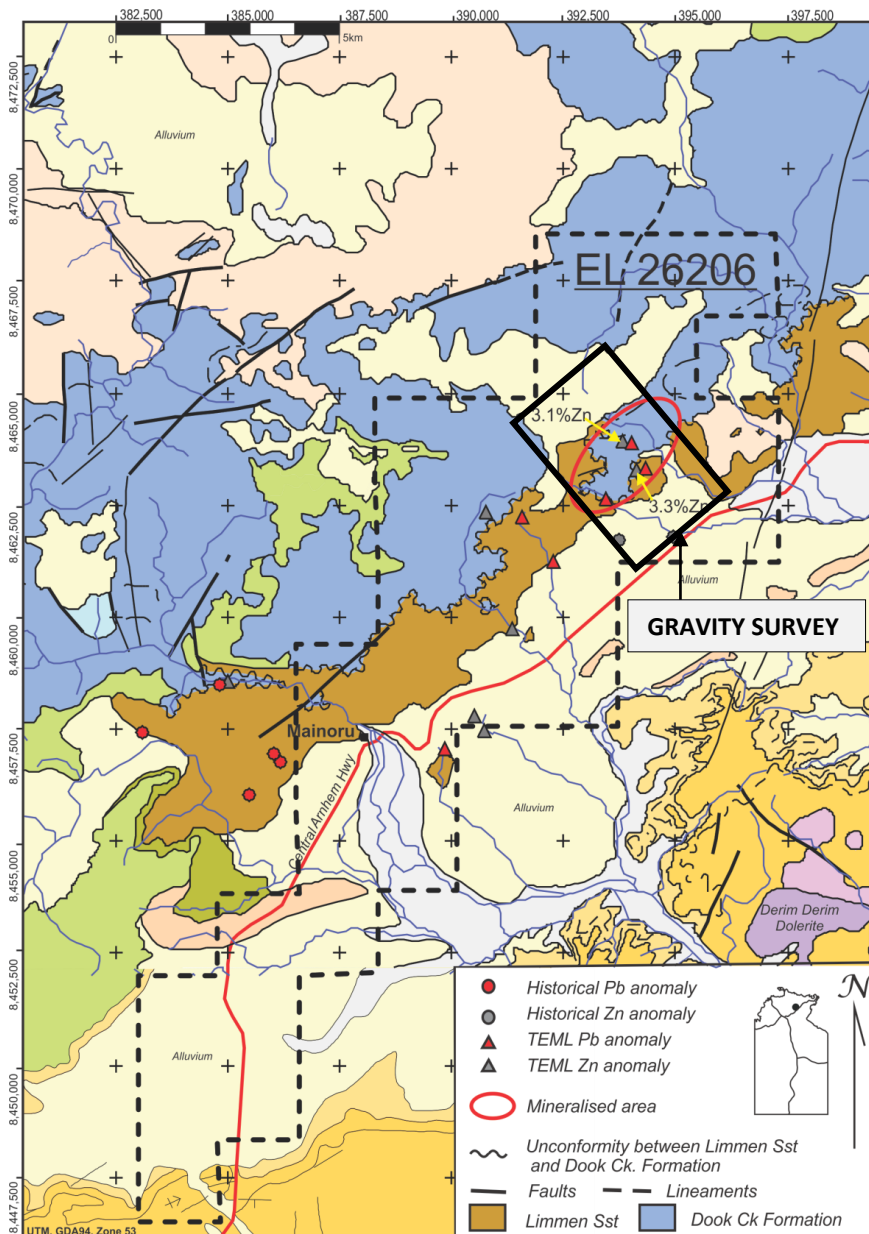
Direct detection of such mineralisation is possible due to the ore being of higher density than the surrounding host rock, which at the Arnhem Land Project comprises dolomitic sediments. With this knowledge the Company completed a detailed ground gravity program to define areas where base metal mineralisation has potentially accumulated.

Preliminary gravity data has been received with several targets identified for further exploration.

## **Background**

Previous exploration by the Company reported anomalous stream samples, which were followed up with geological mapping and rock chip sampling. This work returned anomalous zinc/lead/silver assays over an area approximately 1km by 1.5km with rock chip values up to 3.31% zinc, 0.63% lead, and 10.3ppm silver. Several outcrops exhibit silicified gossanous features with ample evidence of sulphide replacement. Original rock types of dolomitic siltstones commonly show visible sphalerite, galena and pyrite. Petrological examination confirmed the presence of sphalerite, galena and pyrite and additional sulphides including marcasite and covellite. The exploration data compiled to date indicates a reasonable possibility exists for the presence of discordant base metal mineralisation and in particular Mississippi Valley Type (MVT) zinc/lead mineralisation. A detailed review of past exploration reports identified that the outcropping mineralisation had not been identified by previous explorers.

The Company decided to proceed with a ground gravity survey on the basis that it is possible to detect MVT deposits with sufficiently detailed gravity data because the ore is of higher density than the surrounding host rock.

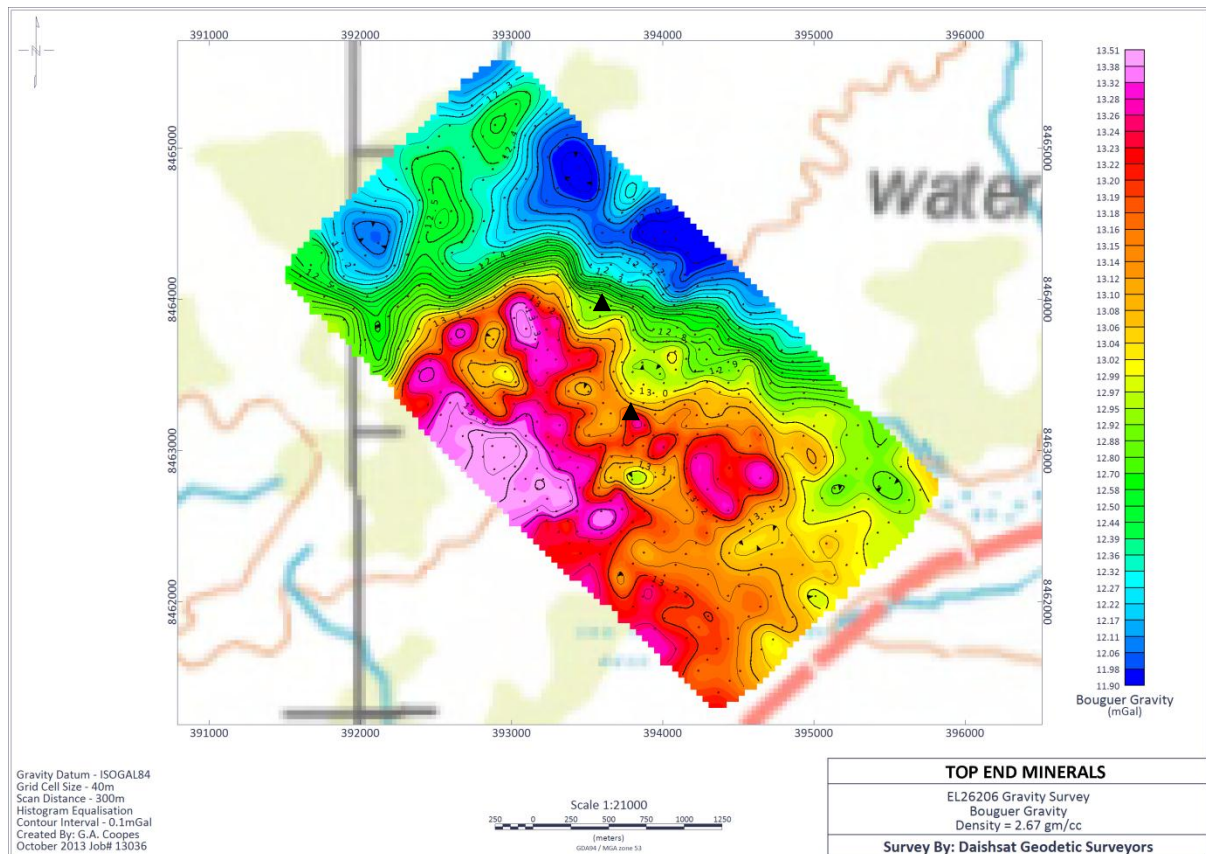


**Figure 1. Map of EL26206 showing mineralised area and the recently completed gravity survey.**

## Ground Gravity Survey

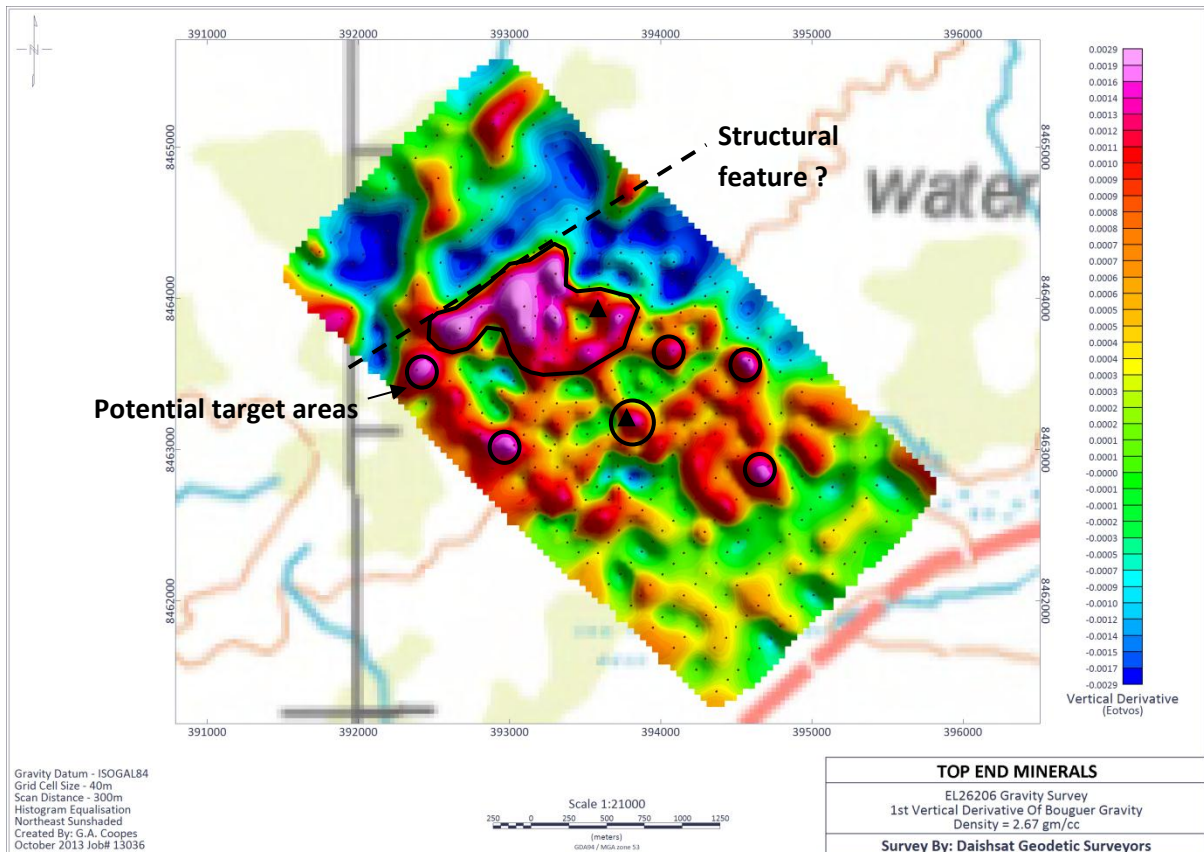
The Company completed a detailed ground gravity survey comprising a total of 560 stations at 100m and 200m spacing. The survey was designed to cover the extent of the known outcropping mineralisation and to obtain background data (Figure 1). Preliminary data has been received including a number of geophysical images.

The Bouguer gravity data shown in Figure 2 represents the lateral and vertical change in the density of the rocks and is attributable to shallow, deep, large and small scale sources including ore bodies. Several geophysical processing methods can be applied to the Bouguer data to discriminate the various sources.



**Figure 2. Bouguer Gravity. Triangles denotes rock chip >3% zinc.**

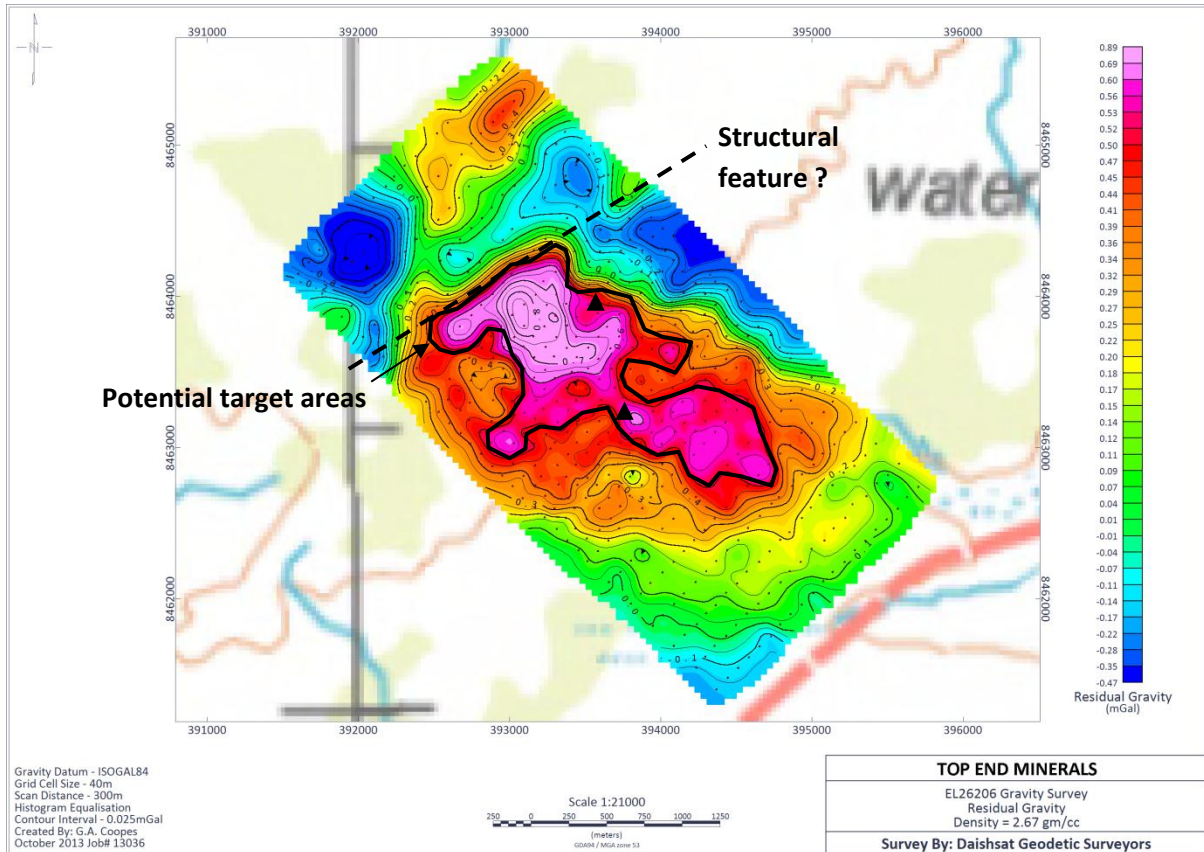
The calculated 1<sup>st</sup> vertical derivative of the Bouguer data attempts to remove the response from deep sources and accentuate the near surface features more important to mineral exploration. By comparing the Bouguer and the vertical derivative image in Figure 3 it is evident that much of the elevated gravity response seen in the Bouguer image, particularly in the central area at the survey boundary, is due to deep regional features. The removal of the regional gravity response has highlighted several areas with an elevated gravity response that are considered worthy of further investigation. It is apparent that the gravity response may also be structurally controlled, which is a key element of the proposed style of mineralisation.



**Figure 3. 1<sup>st</sup> Vertical Derivative of Bouger Gravity. Triangles denotes rock chip >3% zinc.**

A further method of processing the gravity data to accentuate near surface local features is to produce a Residual Gravity image. This method also attempts to remove the regional gravity response and accentuate the response due to small scale features. Several targets identified in the vertical derivative are also evident in the residual gravity image and the Company is encouraged that such targets may represent accumulations of base metal mineralisation.

Upon receipt of the final data further processing will be undertaken including modelling to determine the possible depth and shape of potential mineralisation. This data will be integrated with the existing geological and geochemical data to allow further interpretation of structure and stratigraphy in the context of potential mineral deposit styles. Appropriate planning of follow-up exploration programs will be undertaken during the next quarter. Field work to follow up the targets is expected to occur at the commencement of the 2014 dry season.



**Figure 4. Residual Gravity. Triangles denotes rock chip >3% zinc.**

## Increased land holding

Field and desktop studies identified that the mineralisation may extend further along geological strike and as a consequence the Company applied for an additional exploration licence to cover this prospective ground. As with other areas of Arnhem Land, relatively little exploration has been undertaken over the application area. Past exploration programs are considered to have not adequately covered the area with the correct techniques or mineralisation models. The application was successful increasing the Company's land holding in this area by 672km<sup>2</sup>. Field work is expected to occur at the commencement of the 2014 dry season.



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## REGIONAL EXPLORATION

The majority of the Company's exploration licences are held under application and are located on Aboriginal Land. These licences are at various stages of progression through the Aboriginal Land Rights Act. Through an ongoing review of historical exploration reports and publically available geoscientific data the Company continues to identify those licences considered to be of higher prospectivity. These include several licences in north-eastern Arnhem Land, which fall within an area described by the Northern Territory Geological Survey in 2013 as the '*hottest untested exploration play in the NT*'. Significant potential exists in this area for various styles of sediment hosted base-metal deposits particularly in the northern part of the basin, which is a direct analogue of the Pb-Zn endowed Batten Trough and is effectively unexplored. The licences are also considered prospective for gold, uranium and other commodities making them highly attractive and a valuable Company asset.

The Company holds several licences located in western Arnhem Land closer to the East Alligator River uranium deposits (Ranger, Jabiluka, Koongarra, and Nabarlek). These licences contain historic uranium mineralisation and are considered prospective for unconformity-type uranium deposits near the base of the Kombolgie Sandstone.

Negotiations are continuing with the Northern Land Council to prioritise upcoming land access meetings or allow early ground access to these areas through Preliminary Exploration agreements. These agreements allow non-ground disturbing exploration including mapping, rock chip and soil sampling, and ground geophysical surveys.

J I GUTNICK

Chairman & Managing Director

31 October 2013

*The information in this report that relates to exploration results is based on information compiled by Dr DS Tyrwhitt who is a Fellow of the Australasian Institute of Mining and Metallurgy. Dr DS Tyrwhitt is a consulting geologist employed by DS Tyrwhitt & Associates Pty Ltd. Dr DS Tyrwhitt has 50 years experience in the industry and has more than 5 years experience which is relevant to the style of mineralisation being reported upon to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr Tyrwhitt consents to the inclusion in the report of the matters based on the information in the form and context to which it appears. Attached is a copy of the Company's Mining Exploration Entity Quarterly Report in accordance with Listing Rule 5.3.*

# Appendix 5B

## Mining exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 3 0/09/01, 01/06/10, 17/12/10

Name of entity

TOP END MINERALS LIMITED

ABN

48 124 943 728

Quarter ended ("current quarter")

30 SEPTEMBER 2013

### Consolidated statement of cash flows

	Current quarter \$A'000	Year to date (3 months) \$A'000
<b>Cash flows related to operating activities</b>		
1.1 Receipts from product sales and related debtors	-	-
1.2 Payments for (a) exploration & evaluation (b) development (c) production (d) administration	(408) - - (247)	(408) - - (247)
1.3 Dividends received	-	-
1.4 Interest and other items of a similar nature received	-	-
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Other (GST Credits)	14	14
<b>Net Operating Cash Flows</b>	<b>(641)</b>	<b>(641)</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	642	642
1.12 Other (provide details if material)	-	-
<b>Net investing cash flows</b>	<b>642</b>	<b>642</b>
1.13 Total operating and investing cash flows (carried forward)	1	1

+ See chapter 19 for defined terms.



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

1.13	Total operating and investing cash flows (brought forward)	1	1
	<b>Cash flows related to financing activities</b>		
1.14	Proceeds from issues of shares, options, etc.	-	-
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 (provide details if material)	-	-
	<b>Net financing cash flows</b>	-	-
	<b>Net increase (decrease) in cash held</b>	1	1
1.20	Cash at beginning of quarter/year to date	16	16
1.21	Exchange rate adjustments to item 1.20	-	-
1.22	<b>Cash at end of quarter</b>	17	17

**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	6
1.24	Aggregate amount of loans to the parties included in item 1.10	-

1.25 Explanation necessary for an understanding of the transactions

-

**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

-

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

-

+ 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	200	-
3.2 Credit standby arrangements	-	-

### Estimated cash outflows for next quarter

	\$A'000
4.1 Exploration and evaluation	97
4.2 Development	-
4.3 Production	-
4.4 Administration	102
<b>Total</b>	<b>199</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	17	16
5.2 Deposits at call	-	-
5.3 Bank overdraft	-	-
5.4 Other (provide details)	-	-
<b>Total: cash at end of quarter (item 1.22)</b>	<b>17</b>	<b>16</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>	NIL			
7.2	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions				
7.3	<b>+Ordinary securities</b>	65,958,684	65,958,684		
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>	NIL			
7.6	Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7	<b>Options</b> <i>(description and conversion factor)</i>	-	-	-	-
7.8	Issued during quarter	-	-	-	-
7.9	Exercised during quarter	-	-	-	-
7.10	Expired during quarter	-	-	-	-
7.11	<b>Debentures</b> <i>(totals only)</i>	NIL	-		
7.12	<b>Unsecured notes</b> <i>(totals only)</i>	NIL	-		

+ 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 5).
- 2 This statement does give a true and fair view of the matters disclosed.



Sign here:.....

Date: 31 OCTOBER 2013

Company Secretary

Print name: PETER LEE

## 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 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report.
- 5 **Accounting Standards** ASX will accept, for example, the use of International Financial Reporting 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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