



Quarterly Activities Report

For the Period Ended 31 December 2013

HIGHLIGHTS

Testwork on the Company's proprietary **U-pgrade™** technology (which can dramatically reduce the capital and operating costs required to treat certain calcrete hosted carnotite deposits) continues to be very successful

- **U-pgrade™** is shown to apply to several uranium resources additional to Marenica.
- Uranium recovery from **U-pgrade™** has been improved further.
- **U-pgrade™** testwork on high sulphate uranium ores very encouraging.

MARENICA URANIUM PROJECT – 75% owned

The main activity in this quarter in relation to the Marenica Uranium Project continued to be detailed metallurgical testwork on bulk samples, to upgrade the carnotite ahead of leaching, from the Company's 75% owned **Marenica Uranium ("Project")**, located in Namibia, Southern Africa.

The testwork programme included flowsheet optimisation work on bulk samples of Marenica ore.

The Company continued work on optimising the concentrate upgrade ratio and on maximising the uranium recovery during the quarter. Successful recovery of the bulk of the carnotite from one of the reject streams from the **U-pgrade™** process has resulted in an increase in projected overall recovery for Marenica samples, from the previously reported 72.0% to 73.5%. An increase in recovery also results in a reduction in projected operating costs, which are expressed as a function of recovered pounds of U_3O_8 .

The **U-pgrade™** results achieved to date have been on low sulphate ore, which represents the majority of the Marenica resource. The high sulphate ore is concentrated nearer surface than the low sulphate and the carnotite mineralogy is more complex than that for low sulphate ore. Marenica has modified the **U-pgrade™** flowsheet to liberate the carnotite from the high sulphate ore and is expecting to reject both the sulphate and calcite minerals in testwork scheduled for the current quarter.

Application of **U-pgrade™** to high sulphate bearing calcrete hosted uranium ores is significant because these ore types have not been able to be processed by conventional processing routes due to the sulphate consuming large quantities of alkali reagent in an alkali leach, resulting in very high operating costs. Some resource companies have classified the high sulphate ore as waste. Marenica believes the **U-pgrade™** process will enable processing of much of this "waste", and thereby improve the economics of a project.

The Marenica Project, along with many other surficial uranium deposits in Africa, contains a high distribution of sulphate minerals nearest the surface. For some resources such as Marenica this high sulphate component represents a low distribution of the ore resource (10%) but for other resources the distribution of high sulphate ore can be as high as 100%.

The mineralogy of the high sulphate calcrete ores in Africa closely resembles that of several calcrete deposits in Australia and any advances in process technology on this ore type in Africa are expected to be applicable to Australian calcrete deposits.

During the current quarter the Company will continue to work on optimising the concentrate upgrade ratio and on maximising the uranium recovery, and continue testwork on the other ore sources from seven resource companies.

The design and costing of a transportable Pilot Plant is also planned for the current quarter. The transportable nature of the Pilot Plant will allow the plant to be used in various locations around the world.

Note: **U-pgrade™** is the proprietary technology developed by Marenica for upgrading the carnotite in surficial secondary uranium deposits prior to leaching. The **U-pgrade™** process rejects ~98.7% of the mass by physical separation prior to leaching. The low mass of concentrate leached is both beneficial for the environment as well as operating costs.

APPLICATION OF **U-PGRADE™**

Ore characterisation testwork on samples from Areva Mine's Trekkopje deposit in Namibia and Deep Yellow Ltd (Reptile Uranium (Pty) Ltd) resources in Australia and Namibia were completed during the quarter. Testwork on additional samples from several other ore sources was still in progress at the end of the quarter.

The Trekkopje deposit is located on the Mining License (ML151) immediately south of Marenica in Namibia (refer to Figure 1). The Trekkopje resource is a similar resource to Marenica but with a marginally higher grade. The Trekkopje project is a large scale heap leach operation which is currently under care and maintenance due to the prevailing low uranium price and high operating costs. Ore characterisation testwork on samples from Areva's Trekkopje deposit has produced very similar results to the Marenica ore on which **U-pgrade™** was developed. Due to the similarities of Marenica and Trekkopje ores, Marenica has a high level of confidence that **U-pgrade™** can also be successfully applied to the Trekkopje deposit.

Deep Yellow Ltd has supplied ore samples from three of its surficial deposits in Australia and Namibia, which happen to be of significantly higher grade than Marenica (at least 3 times on average). The Namibian deposits include Tumas and Aussinanis. Tumas is within EPL3497 and is 30km south west of Paladin's Langer Heinrich mine, as shown in Figure 1. Aussinanis is 50km south of Tumas within EPL3498.

Ore characterisation testwork on the first of the Namibian deposits (Tumas) has been evaluated and the results appear to be very similar to the Marenica **U-pgrade™** ore characterisation results. Six drill holes along the entire strike length of the Tumas Calcrete deposit produced 14 x 1kg samples for testing. The samples selected for metallurgical testing varied in depth from 1 to 17m. Three composites, varying in sulphate, dolomite and calcite concentrations, were formed. The ore characterisation results for the Tumas Calcrete deposit are summarised in Figure 2, showing a high degree of carnotite (uranium mineral) liberation and indicating a high propensity to upgrade through Marenica's proprietary **U-pgrade™** process.

A high distribution to the right of the x-axis in Figure 2 indicates very well liberated carnotite that is expected to upgrade through the **U-pgrade™** process into a low mass concentrate for leaching.

Tumas 2 composite samples were taken from a depth of 1 to 3m and contained a high distribution of sulphate minerals, assay result of 6.3% sulphate. Marenica expected the mineralogy of this sample to be more complex with less liberation than the deeper, low sulphate samples. However, the liberation analysis indicated a very similar liberation to the low sulphate samples, which is a positive result for Tumas as no modifications of the **U-pgrade™** flowsheet will be required to process this ore type.

Most other mineralogical characteristics of the Tumas deposit are similar to the Marenica deposit and Marenica have indicated a high confidence level that **U-pgrade™** will be effective on the Tumas deposit.

Testwork on the Aussinanis deposit, south of Tumas, was in progress at the end of the quarter.

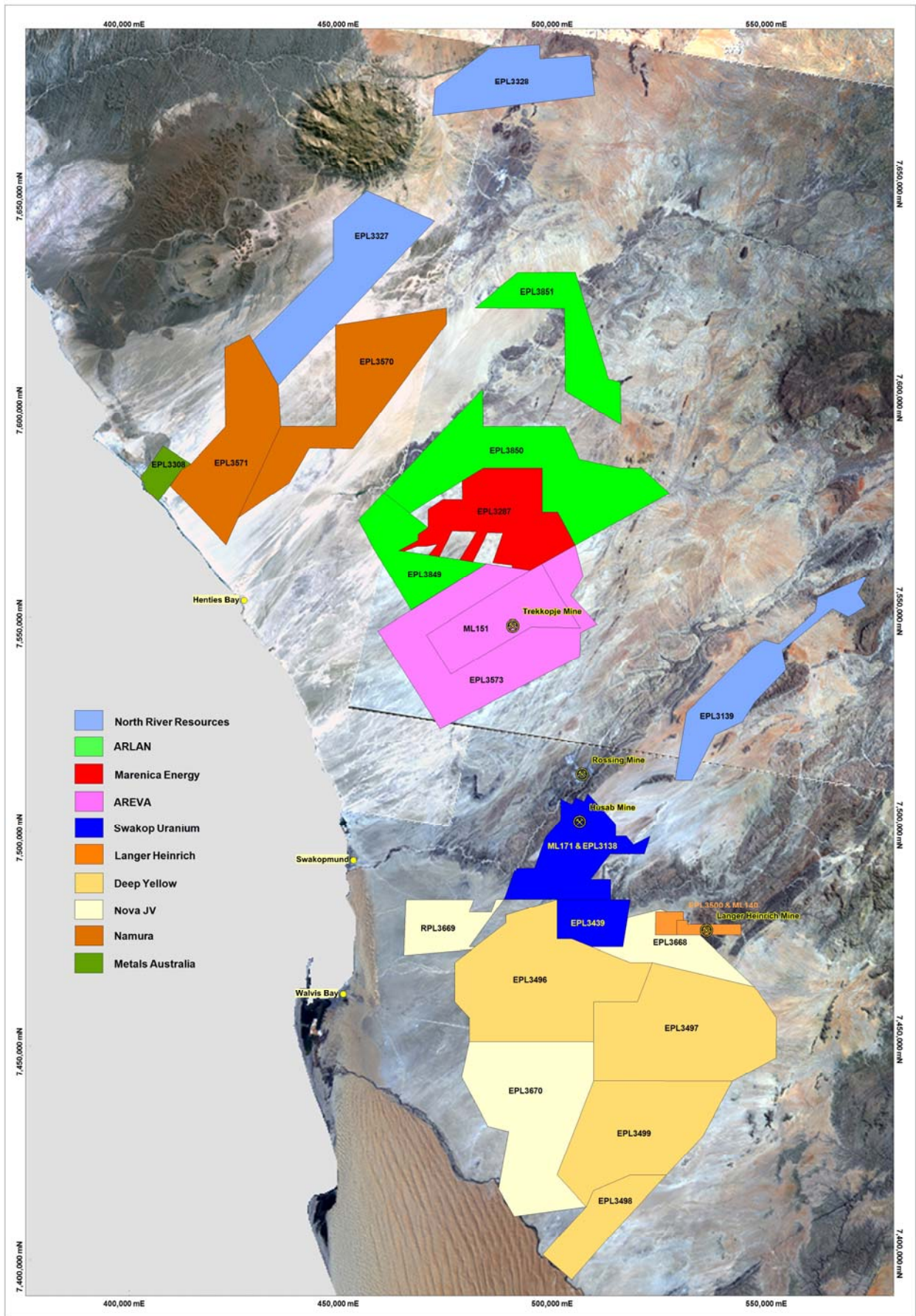


Figure 1 Namibian Uranium Tenements

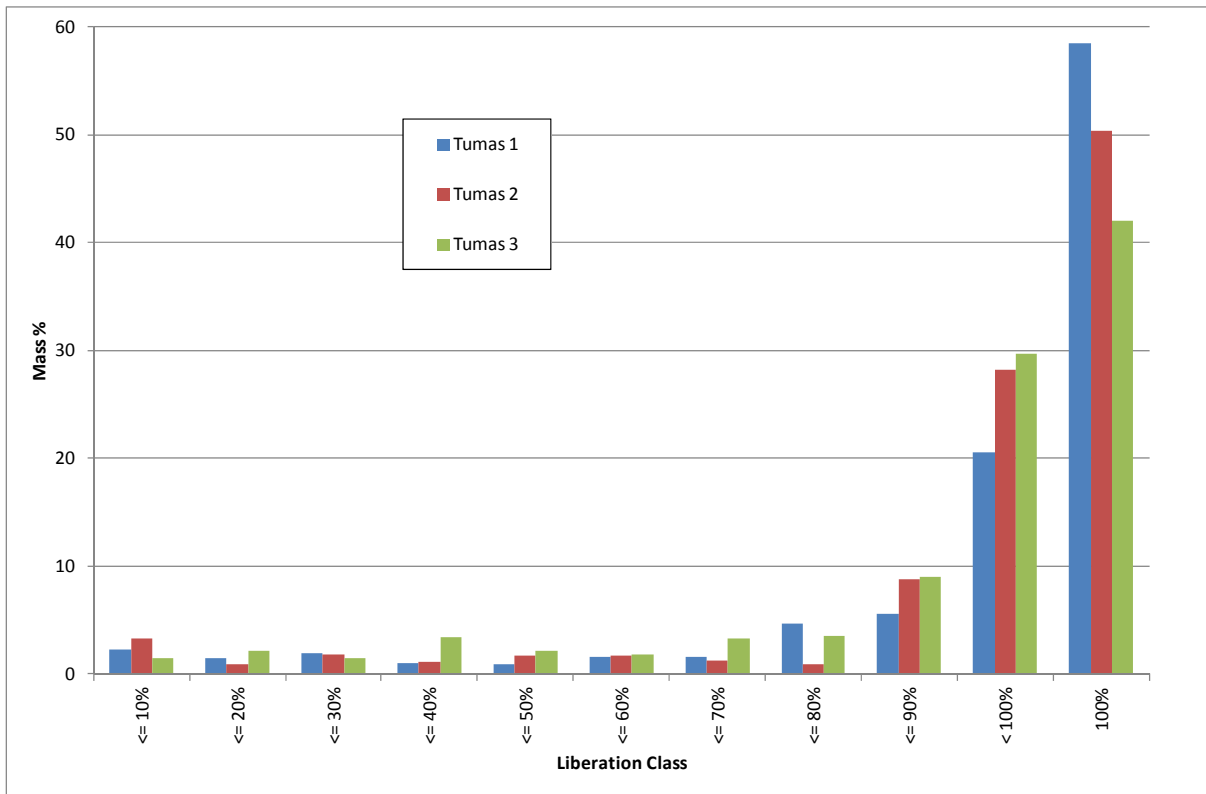


Figure 2 Tumas Ore Characterisation Carnotite Liberation Summary

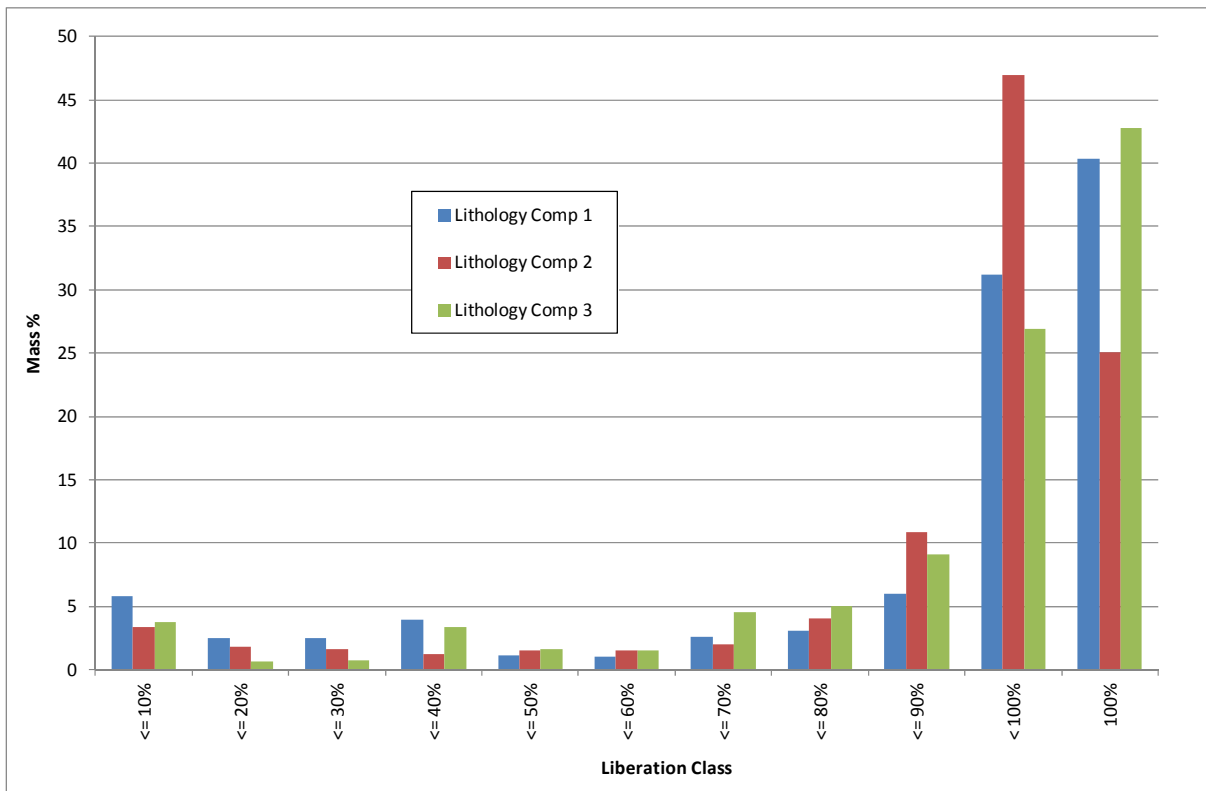


Figure 3 Napperby Ore Characterisation Carnotite Liberation Summary

Deep Yellow provided samples from the Napperby surficial uranium deposit in the Northern Territory for **U-pgrade™** amenability testing. Although the Napperby deposit is a secondary uranium deposit the geology differs from the calcrete deposits in Namibia.

Nine 2kg samples were taken along strike from the Napperby deposit and were combined to form three Lithology composites. A full ore characterisation programme was completed on each composite to determine the amenability of the Napperby ore to Marenica's proprietary **U-pgrade™** technology. The results from the ore characterisation, summarised in Figure 3, showing a high degree of carnotite (uranium mineral) liberation, indicating a high propensity to upgrade through Marenica's **U-pgrade™** process.

Also of particular importance at Napperby is that one of the deleterious minerals that limits mineral separations on the Namibian resources has not been identified at Napperby and it would be expected that a higher uranium recovery could be achieved at Napperby than has been achieved on Marenica's uranium resource, which has been extensively tested and used to develop **U-pgrade™**.

All ore characterisation completed under the guidance of Marenica was completed at CSIRO facilities in Perth.

Based on the ore characterisation results on Tumas and Napperby Marenica has a high level of confidence that **U-pgrade™** can be successfully applied to the Deep Yellow resources tested in both Namibia and Australia.

Successful investigation as to the applicability of **U-pgrade™** technology to the Deep Yellow and Trekkopje deposits indicates that **U-pgrade™** has a broader application than the Marenica deposit, including projects thus far in both Africa and Australia. The results from Napperby also indicate that application of **U-pgrade™** is not limited to calcrete deposits but also applies to some surficial deposits with different geology to the Marenica calcrete style deposit.

Marenica is looking forward to receipt of ore characterisation results on additional ore samples from other sources during the current quarter.

CORPORATE

With the identification of a broader application for **U-pgrade™** in several African and Australian deposits the Company expects to announce a funding round during the March 2014 quarter to fund the next exciting phase of development of **U-pgrade™**.

The **U-pgrade™** patent Priority Date is 17 October 2012 and the Complete Patent Application was lodged in Australia on 11 October 2013. The International Search Report and the Written Opinion of the International Searching Authority have produced positive outcomes. The next step of protection of Marenica's **U-pgrade™** technology is publication of the Patent Cooperation Treaty (PCT) towards the end of April 2014. The PCT assists Marenica in seeking patent protection internationally for **U-pgrade™**.

TENEMENTS

The Group holds the following mineral tenements at the end of the December 2013 quarter.

Namibia – Marenica Minerals (Pty) Ltd

- EPL3287

Australia – Marenica Energy Ltd

- Vic Loc 118
- Vic Loc 119
- Vic Loc 833

Australia – Ausgold Exploration Pty Ltd

- M70/210

- M70/211
- M70/488

ENDS

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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, 01/05/2013

Name of entity

Marenica Energy Ltd

ABN

71 001 666 600

Quarter ended ("current quarter")

31 December 2013

Consolidated statement of cash flows

Cash flows related to operating activities	Current quarter \$A'000	Year to date (6 months) \$A'000
1.1 Receipts from product sales and related debtors		
1.2 Payments for (a) exploration & evaluation (b) development (c) production (d) administration	(313)	(575)
1.3 Dividends received	(145)	(313)
1.4 Interest and other items of a similar nature received	10	15
1.5 Interest and other costs of finance paid	(152)	(152)
1.6 Income taxes paid – R & D Grant		600
1.7 Other (provide details if material)	8	74
	(592)	(351)
Net Operating Cash Flows		
Cash flows related to investing activities		
1.8 Payment for purchases of: (a) prospects (b) equity investments (c) other fixed assets		2
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)		
		2
Net investing cash flows		
1.13 Total operating and investing cash flows (carried forward)	(592)	(353)

+ See chapter 19 for defined terms.

Appendix 5B
Mining exploration entity and oil and gas exploration entity quarterly report

1.13	Total operating and investing cash flows (brought forward)	(592)	(353)
	Cash flows related to financing activities		
1.14	Proceeds from issues of shares, options, etc.	179	1,020
1.15	Proceeds from sale of forfeited shares		
1.16	Proceeds from borrowings		
1.17	Repayment of borrowings		(381)
1.18	Dividends paid		
1.19	Other (provide details if material)		
	Net financing cash flows	179	639
	Net increase (decrease) in cash held	(413)	287
1.20	Cash at beginning of quarter/year to date	1,116	416
1.21	Exchange rate adjustments to item 1.20		
1.22	Cash at end of quarter	703	703

Payments to directors of the entity, associates of the directors, 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	15
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

+ See chapter 19 for defined terms.

Mining exploration entity and oil and gas exploration entity quarterly report

- 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

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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	1,651	1,651
3.2 Credit standby arrangements		

Estimated cash outflows for next quarter^{1,101}

	\$A'000
4.1 Exploration and evaluation	377
4.2 Development	
4.3 Production	
4.4 Administration	110
Total	487

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	5	15
5.2 Deposits at call	698	1,101
5.3 Bank overdraft		
5.4 Other (provide details)		
Total: cash at end of quarter (item 1.22)	703	1,116

+ See chapter 19 for defined terms.

Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

Changes in interests in mining tenements and petroleum tenements

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

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	Preference securities (description)			
7.2	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions			
7.3	*Ordinary securities	1,015,615,086	1,015,615,086	
7.4	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs	48,660,994	48,660,994	0.4

+ See chapter 19 for defined terms.

Mining exploration entity and oil and gas exploration entity quarterly report

7.5	+Convertible debt securities (description)	1,650,671 Convertible notes - Convertible at 2.626c on or before 14 November 2015.			
7.6	Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7	Options (description and conversion factor)	18,000,000		<i>Exercise price</i> 2.7 cents	<i>Expiry date</i> 30/4/2015
7.8	Issued during quarter				
7.9	Exercised during quarter				
7.10	Expired during quarter	12,500,000 6,500,000		<i>Exercise price</i> 21 cents 13 cents	<i>Expiry date</i> 15/12/2013 31/10/2013
7.11	Debentures (totals only)				
7.12	Unsecured notes (totals only)				

Compliance statement

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

Sign here:



Director

..... Date: 31 January 2014

Print name: Robert Ashley Pearce

+ See chapter 19 for defined terms.

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 and petroleum 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 or petroleum 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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