

ASX Release: 27 January, 2010

Quarterly Activities Report - for the period ended 31 December 2009

ASX Code: RXM

Shares on Issue: 108.8 million

Options on Issue: 7.6 million

Cash on hand as at 31 Dec: \$48.1m

Market Cap as at 25 Jan: \$182.8m

Share range in quarter: 158c to 236c

Website: www.rexminerals.com.au

Extensive shallow copper discovered at Hillside.

\$42 million capital raising successfully completed.

Funds secured to deliver a maiden large-scale Resource at Hillside.

For further information, please contact:

*Steven Olsen (Managing Director)
or Janet Mason (Company Secretary)*

Phone: 03 5337 4000

E-mail: info@rexminerals.com.au

Media enquiries to:

Simon Jemison

Collins Street Media

03 9224 5319

simon@collinsstreetmedia.com.au

HIGHLIGHTS

Pine Point Copper Belt, Yorke Peninsula, South Australia:

- High-grade copper defined at Hillside for over 2.1km of strike along/across three major structures (Zanoni, Parsee, Songvaar).
- Extensive shallow copper mineralisation also discovered on the Songvaar structure.
- A further 2.9km of strike at Hillside yet to be tested.
- 5,765 metres drilled in quarter, best results include:
 - 71m @ 1.5% copper and 0.4g/t gold (from 87m below surface)
 - 43m @ 0.8% copper and 0.4g/t gold (from 157m below surface)
 - 28m @ 1.1% copper and 0.6g/t gold (from 61m below surface)
 - 33m @ 0.7% copper and 0.9g/t gold (from 13m below surface)
 - 14m @ 2.7% copper and 0.6g/t gold (from 130m below surface)
 - 121m @ 0.6% copper and 0.3g/t gold (from 10m below surface)

Note: Intersections are down hole widths

Mt Carrington, NSW:

- Multiple large scale copper, gold and silver targets defined with drill testing to commence in January 2010.

Corporate:

- Entitlement issue raised \$42 million at \$1.70-a-share
- Cash position of \$48.1 million at quarter's end

SUMMARY COMMENTS

Copper mineralisation has now been discovered across three major parallel structures approx. 150 metres apart at Hillside. Each structure is defined by a magnetic anomaly, with every one of the 19 drill holes completed at Hillside in the quarter intersecting copper mineralisation. Large areas of the magnetic features remain to be drill tested..

In addition, substantial shallow secondary copper mineralisation has been identified. This mineralisation appears to correspond with an extensive EM anomaly that was identified in 2009.

OUTLOOK

Rex has two diamond drill rigs at Hillside which recommenced drilling on 9th January 2010. The program will ramp up to five rigs in April. Four rigs will be devoted to defining a maiden Resource estimate at Hillside, with a fifth rotating between Mt Carrington, NSW and other newly identified targets on the Pine Point Copper Belt near Hillside.

PROJECTS

Hillside Prospect - Pine Point Copper Belt (Yorke Peninsula, South Australia)

Two diamond drill rigs were operating continuously at Hillside during the quarter. The focus was to test the extent of the Hillside magnetic anomaly which is interpreted to have a close association with copper mineralisation. The magnetic anomaly covers an area of some 2km long and 500m wide (Figure 1). Almost every drill hole targeted on the magnetic anomaly has intersected copper mineralisation, with a large number of intersections received during the quarter in previously untested locations (table 1 and figure 1).

Of particular significance was the discovery of shallow copper mineralisation from 10m below the surface, discovered on the Songvaar structure. Some shallow intersections of secondary copper (less than 100m from the surface) have also been discovered on the Parsee and Zanoni structures.

The initial copper assays (such as drill hole HDD018, announced on 12 January 2009) occur at a location where the magnetic anomaly is generally weak. This zone was also found to be relatively deep (between 200 and 500m below the surface) on the Zanoni structure.

Recent drilling where the magnetic anomaly is strong on the Parsee and Songvaar structures has identified a higher percentage of shallow copper results less than 200m from surface.

The broad drill testing campaign has been very successful, proving extensive copper mineralisation exists throughout the Hillside magnetic anomaly. The focus during the next six months will now change towards defining the projects first Resource estimate by mid-2010.

Drilling results have shown numerous sections of high grade copper mineralisation (>1% copper) surrounded by more extensive lower grade mineralisation. The Company anticipates there will be occasional thick and higher grade results (>1% copper) combined with a large number of drill holes containing extensive lower grade (0.5 to 1.0% copper). These results are considered typical of a large-scale bulk tonnage copper project. The ability to apply bulk tonnage methods and to take advantage of larger economies of scale is considered critical to the success of many major long-life copper operations throughout the world.

The confirmation of broad and shallow copper mineralisation at Hillside, combined with its close proximity to existing project infrastructure (power, port, water) places the Hillside project in a unique position in comparison to many other new copper development projects.

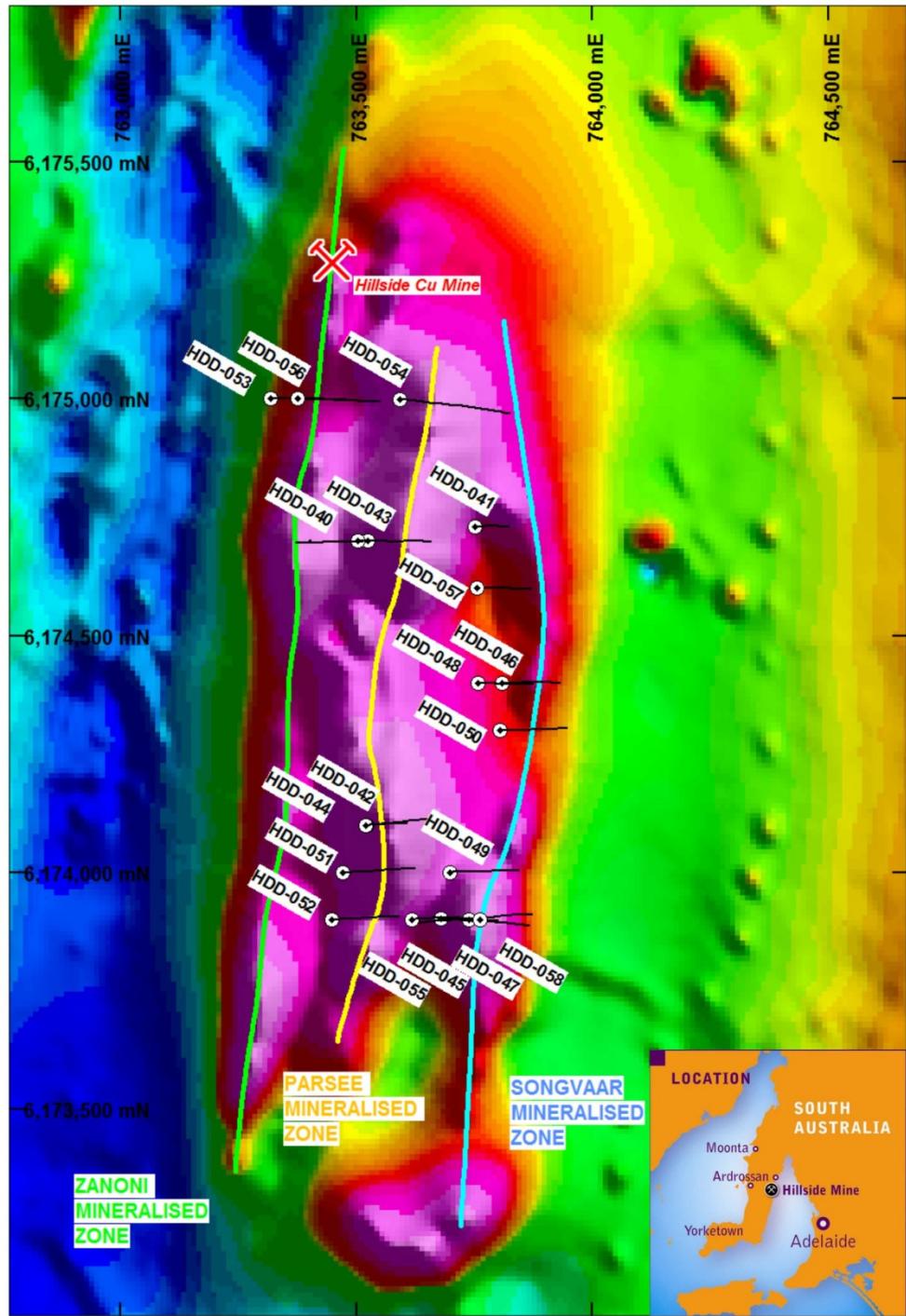


Figure 1: High resolution magnetic image at Hillside highlighting the location of drilling completed during the December quarter.

Table 1: Tabulated assay results from drill holes completed at the Hillside Project in South Australia during the December quarter.

HOLE ID	FROM (m)	TO (m)	INTERVAL (m)	Cu (%)	Au (g/t)	STRUCTURE
HDD – 040	138	152	14	2.7	0.6	Zanoni
<i>Including</i>	145	152	7	4.7	1.1	Zanoni
HDD – 041	72	94	22	0.5	-	Songvaar
HDD – 042	90	119	29	0.3	0.1	Parsee
HDD-043	302	327	25	0.4	0.1	Parsee
<i>including</i>	302	306	4	0.7	0.3	Parsee
<i>including</i>	321	326	5	1	0.4	Parsee
HDD – 044	155	176	21	0.4	0.3	Parsee
	186	200	14	0.4	0.1	Parsee
	272	304	24	0.7	0.3	Parsee
<i>Including</i>	278	282	4	1.4	0.8	Parsee
HDD - 045	78	84	6	0.5	0.2	Songvaar
	93	98	5	0.6	0.2	Songvaar
	108	112	4	0.7	0.2	Songvaar
	166	180	14	0.3	0.1	Songvaar
	193	218	25	0.8	0.2	Songvaar
<i>Including</i>	195	206	11	1.3	0.4	Songvaar
HDD-046	79	105	26	0.4	0.2	Songvaar
HDD-047	15	48	33	0.7	0.9	Songvaar
<i>including</i>	33	45	12	1.1	1.6	Songvaar
HDD-048	101	172	71	1.5	0.4	Songvaar
<i>including</i>	118	147	29	2.2	0.5	Songvaar
<i>including</i>	154	168	14	2.1	0.5	Songvaar
HDD-049	81	92	11	0.4	0.1	Songvaar
	108	113	5	1	0.1	Songvaar
	145	160	15	0.6	0.2	Songvaar
<i>including</i>	147	151	4	0.9	0.4	Songvaar

HDD-050	71	99	28	1.1	0.6	Songvaar
HDD-051	181	224	43	0.8	0.4	Parsee
<i>including</i>	206	224	18	1.1	0.6	<i>Parsee</i>
HDD-052	167	229	62	0.5	0.2	Parsee
<i>including</i>	185	207	22	0.7	0.4	<i>Parsee</i>
HDD-053	173	198	25	1.1	0.1	Zanoni
HDD-054	92	110	18	0.7	0.3	Parsee
	149	167	18	0.6	0.1	<i>Parsee</i>
	203	226	23	0.6	0.3	<i>Parsee</i>
	237	277	40	0.6	0.3	<i>Parsee</i>
	301	380	79	0.4	0.1	<i>Parsee</i>
<i>including</i>	317	337	20	0.8	0.3	<i>Parsee</i>
HDD-055	171	285	114	0.5	0.2	Songvaar
<i>including</i>	175	195	20	1.0	0.2	<i>Songvaar</i>
HDD-056	235	241	6	0.5	0.4	Zanoni
HDD-057	119	179	60	0.7	0.4	Songvaar
<i>Including</i>	119	125	6	1.0	0.5	<i>Songvaar</i>
<i>Including</i>	134	144	10	1.0	0.4	<i>Songvaar</i>
<i>Including</i>	157	179	22	0.8	0.5	<i>Songvaar</i>
HDD-058	11	132	121	0.6	0.3	Songvaar
<i>Including</i>	16	38	22	0.7	0.6	<i>Songvaar</i>
<i>Including</i>	45	68	23	0.8	0.3	<i>Songvaar</i>
<i>Including</i>	109	132	23	0.8	0.2	<i>Songvaar</i>
	149	252	103	0.4	0.2	Songvaar
<i>Including</i>	160	182	22	0.8	0.4	<i>Songvaar</i>

Mt Carrington Gold-Silver Project (New South Wales)

Exploration of the Mt Carrington project continued through the quarter, with completion of the 400km² high resolution airborne magnetic survey, interpretation of historical geology data, and compilation of data from the recent drilling and geophysical programs.

This review has identified a number of gold, copper and silver targets to be drill tested in the March quarter. These targets represent extensions to the known gold (Strauss and North Kylo) and silver (White Rock, Silver King) prospects, along with new deeper targets considered to display strong potential for larger scale porphyry and breccia hosted copper mineralisation.

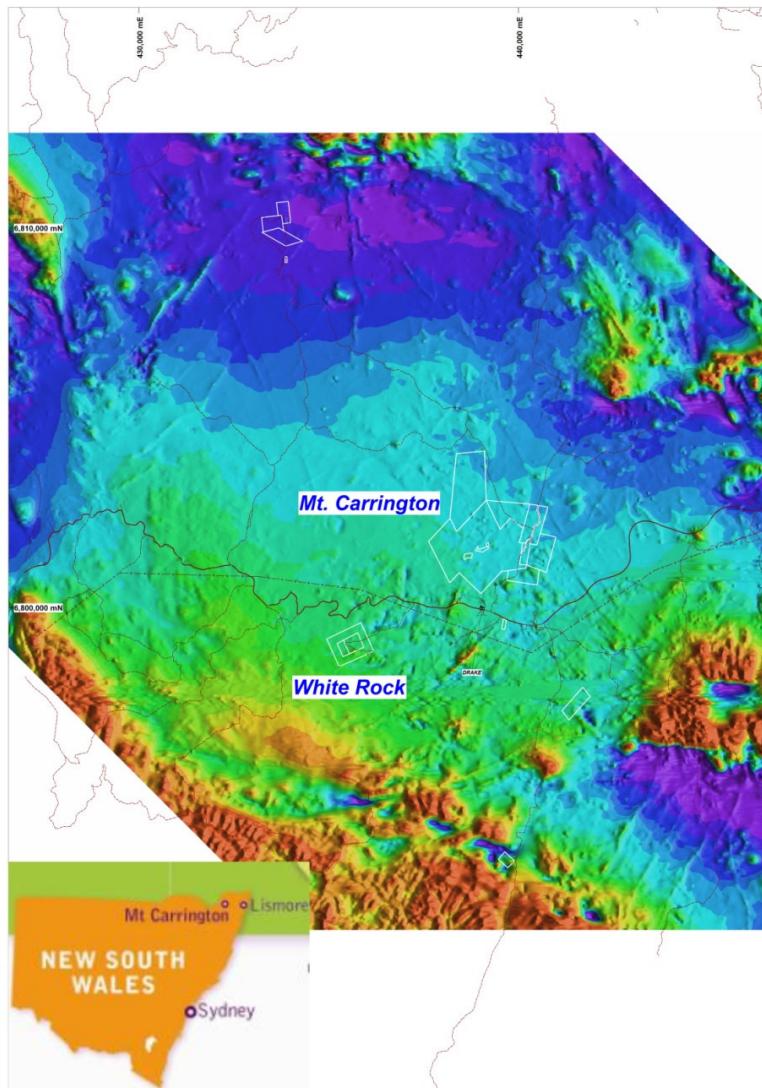


Figure 2: Mt Carrington airborne magnetic survey (reduced to pole data) displaying the location of the central and White Rock mining leases.

ACTIVITIES PLANNED FOR NEXT QUARTER

Hillside: Rex has two diamond drill rigs located at the Hillside project which recommenced on 9th January 2010. The drilling program will gradually increase at Hillside from two to four drill rigs, with a fifth rig scheduled to arrive in April.

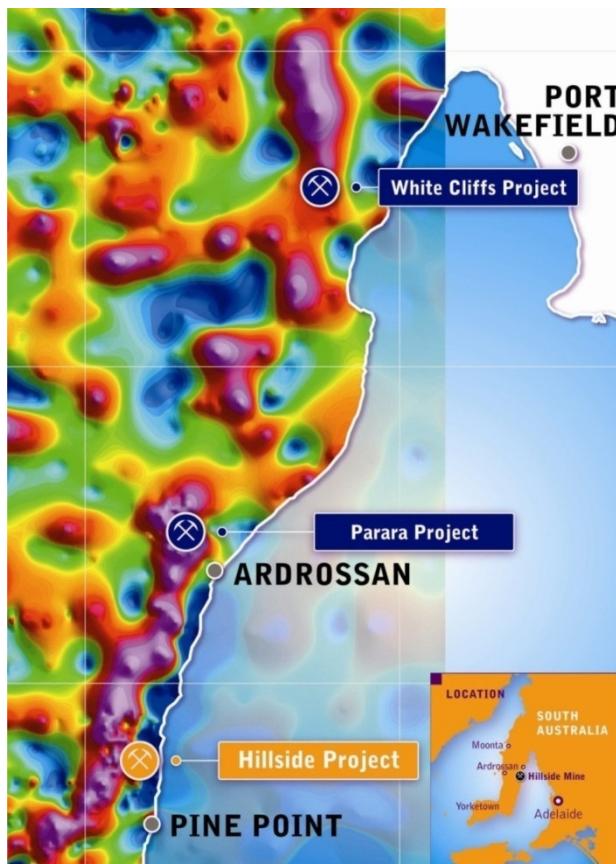
Percussion drilling will start in February, which is expected to speed up the rate of drill within 200 metres of the surface. The current program aims to maintain four drill rigs at to define a maiden Resource at Hillside, with a fifth drill rig dedicated to making a new discovery on the Pine Point Copper Belt near Hillside and also at Mt Carrington, NSW.

Mt Carrington: A diamond drill rig commenced work at Mt Carrington on 11th January 2010. The initial focus is to identify a new copper and/or gold discovery based on Rex's extensive 2009 geophysical reviews and surveys.

The aim of the drilling in the March quarter at Mt Carrington is to obtain positive indicators of, and demonstrate the potential for substantial porphyry copper mineralisation and/or high grade gold mineralisation.

About Rex Minerals

Rex is an Australian minerals exploration company with recent copper discoveries in South Australia and New South Wales. Rex seeks to discover multiple copper deposits leading to the development of a large scale, low cost and long life mining operation on the Yorke Peninsula in South Australia. Existing gold and silver Resources and a shallow copper discovery at Mt Carrington in NSW also provide Rex with a shorter term development option. The project portfolio is therefore expected to provide Rex with a sustainable pipeline of development opportunities.



Rex is exploring for multiple large scale copper-gold-uranium deposits on the Yorke Peninsula, South Australia. The presence of copper on the Yorke Peninsula was first highlighted by a number of small and high grade historical copper mines that exist within a large regional fault known as the Pine Point Fault Zone.

Rex considers that most of the copper was not discovered by early prospectors as it lies underneath 10 to 50 metres of cover sediments and were effectively "hidden" from earlier explorers.

Rex is undertaking a number of geophysical surveys that enable geologists to "see through" the shallow cover sediments to identify potential sites for large scale copper-gold-uranium mineralisation. As part of this work, recent gravity surveys have highlighted a large number of targets that exist along the Pine Point Fault Zone (shown in purple on adjacent image).

Highlights from drilling at the first of these targets at Hillside include:

259m @ 1.7% copper and 0.4g/t gold
57m @ 1.5% copper and 0.4g/t gold
57m @ 1.4% copper and 0.2g/t gold
60m @ 3.0% copper and 0.5g/t gold

In NSW, Rex has recently acquired 100% ownership of the Mt Carrington gold-silver project. Mt Carrington has 190,000ozs of gold and 10.5Mozs of silver with additional shallow gold and silver potential. Recent exploration at Mt Carrington has also identified some significant high-grade copper mineralisation within 100m of the surface, including 18.7m @ 5.9% copper and 10.1m @ 6.3% copper.

Competent Persons Report

The information in this report that relates to Exploration Results or Mineral Resources is based on information compiled by Mr Geoffrey Lowe who is a Member of the Australasian Institute of Mining and Metallurgy and is a full time employee of Rex Minerals Ltd. Mr Lowe has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity 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 Lowe consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Rule 5.3

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

REX MINERALS LTD

ABN

12 124 960 523

Quarter ended (“current quarter”)

31 DECEMBER 2009

Consolidated statement of cash flows

		Current quarter \$A'000	Year to date \$A'000
Cash flows related to operating activities			
1.1	Receipts from product sales and related debtors	-	-
1.2	Payments for <ul style="list-style-type: none"> (a) exploration and evaluation (b) development (c) production (d) administration 	(2,023)	(3,632)
1.3	Dividends received	-	-
1.4	Interest and other items of a similar nature received	240	336
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Other (lump sum Payment for Drilling Services, refer corporate activities report)	-	-
Net Operating Cash Flows		(1,999)	(3,728)
Cash flows related to investing activities			
1.8	Payment for purchases of: <ul style="list-style-type: none"> (a)prospects (b)equity investments (c) other fixed assets 	(585)	(585)
1.9	Proceeds from sale of: <ul style="list-style-type: none"> (a)prospects (b)equity investments (c)other fixed assets 	(388)	(471)
1.10	Loans to other entities	-	-
1.11	Loans repaid by other entities	-	-
1.12	Other (provide details if material)	-	-
Net investing cash flows		(973)	(1,056)
1.13	Total operating and investing cash flows (carried forward)	(2,972)	(4,784)

+ See chapter 19 for defined terms.

Appendix 5B
Mining exploration entity quarterly report

1.13	Total operating and investing cash flows (brought forward)	(2,972)	(4,784)
	Cash flows related to financing activities		
1.14	Proceeds from issues of shares, options, etc.	42,264	42,425
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)	(1,829)	(1,829)
	Net financing cash flows	40,435	40,596
	Net increase (decrease) in cash held	37,463	35,812
1.20	Cash at beginning of quarter/year to date	10,635	12,286
1.21	Exchange rate adjustments to item 1.20	-	-
1.22	Cash at end of quarter	48,098	48,098

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	85
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

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	-

+ See chapter 19 for defined terms.

Estimated cash outflows for next quarter

	\$A'000
4.1 Exploration and evaluation	4,000
4.2 Development	-
Total	4,000

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	48,098	48,098
5.2 Deposits at call	-	-
5.3 Bank overdraft	-	-
5.4 Other (provide details)	-	-
Total: cash at end of quarter (item 1.22)	48,098	48,098

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	EL6273, EL6452, EL6453, ML6335, ML6242, ML6295, MPL1345, ML1147, MPL256, MPL259, SL409, MPL24, ML1148, ML1149, ML1150, ML5883, ML5444, GL5477, GL5478, ML6004, ML6006, SL471, SL492, ML6291, ML1200.	Ownership, following exercise of option.	100%	100%

+ 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 Preference +securities <i>(description)</i>				
7.2 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions				
7.3 +Ordinary securities	108,845,152	108,845,152		
7.4 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs	2,000,000 24,861,000 1,114,152	2,000,000 24,861,000 1,114,152	\$0.7575 \$1.70 \$0.70	\$0.7575 \$1.70 \$0.70
7.5 +Convertible debt securities <i>(description)</i>				
7.6 Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7 Options <i>(description and conversion factor)</i>	240,000 300,000 180,000 150,000 1,000,000 5,700,000	- - - - - -	<i>Exercise price</i> \$2.20 \$0.70 \$0.40 \$0.365 \$0.30 \$0.25	<i>Expiry date</i> 31/10/2012 31/5/2012 30/6/2011 30/6/2011 30/6/2011 30/6/2011
7.8 Issued during quarter	240,000	-	\$2.20	31/10/2012
7.9 Exercised during quarter	-	-	-	-
7.10 Expired during quarter				
7.11 Debentures <i>(totals only)</i>				

+ See chapter 19 for defined terms.

7.12	Unsecured notes (totals only)		
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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:

(Company secretary)

Date: 27 January 2010

Print name:

Janet Mason

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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+ See chapter 19 for defined terms.