QUARTERLY REPORT Quarter ending 31 December 2010



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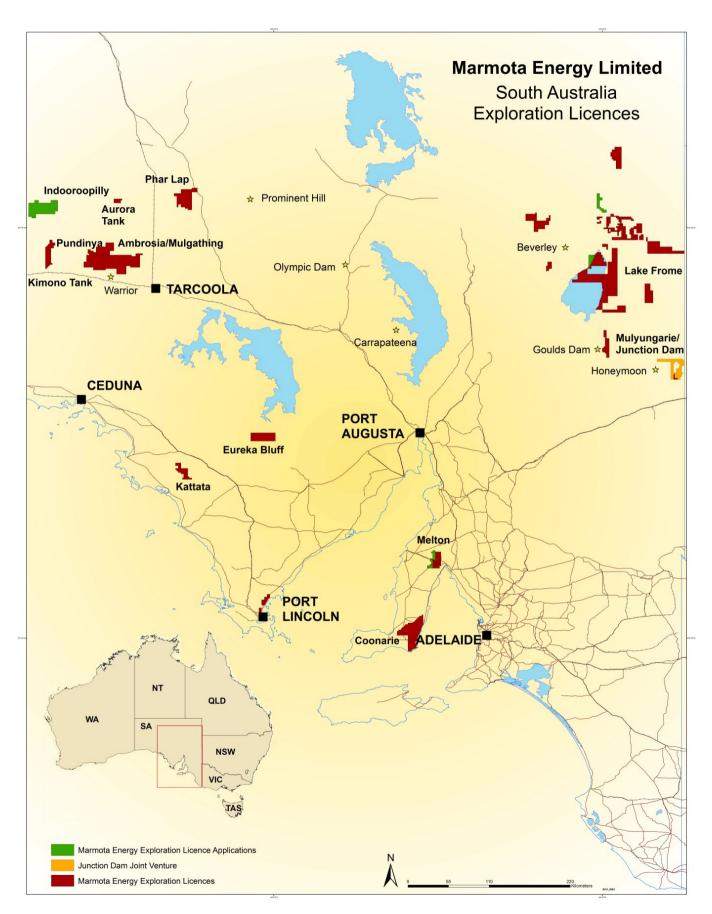
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#### ASX RELEASE

# **Highlights**

- Junction Dam uranium project
  - ➤ QEMSCAN analysis identifies uranium mineralisation predominantly contained as uraninite, coffinite, and uranium phosphate minerals indicating amenability to in-situ leach extraction.
  - ➤ High uranium grades in assay with associated mineralogical samples.
  - ➤ Marmota Energy moves to 74.5% share of the uranium rights on the high grade uranium project at Junction Dam.
  - ➤ Ground electromagnetic survey commenced at 'Bridget' target immediately adjacent to the 'Saffron' prospect.
- Work area clearance agreements signed paving the way for mineral exploration in the uranium rich Frome Embayment region.
- Drilling commenced at Angel Wing gold project in Nevada (United States).
- Melton copper-gold project (Yorke Peninsula SA)
  - ➤ Downhole electrical survey completed in Miranda 1 and 4 drill holes where mineralisation was intercepted during Phase 1 drilling. Phase 2 drilling planned to commence late February 2011.
  - Exploration tenure increase (EL 4648) adjacent to Melton 100% owned by Marmota Energy.

Marmota Energy Limited (ASX: MEU)



Marmota Energy tenement locations

# **Review of Operations**

#### **Corporate Activities**

In the December Quarter of 2010, the Company continued exploration across two high potential and strategic projects in South Australia. Marmota, through its Joint Venture with Ramelius Resources (ASX: RMS) commenced drill testing of potential gold veins at the Angel Wing project in Nevada. At Junction Dam, QEMSCAN analysis confirmed the uranium mineralisation on the project to predominantly be contained in uraninite, coffinite, and uranium phosphate minerals, suggesting amenability to in-situ leach extraction. Downhole geophysical exploration was conducted at the Company's Melton Project on the northern Yorke Peninsula. Marmota signed 'Work Area Clearance Agreements' with the Adnyamathanha Traditional Lands Association (ATLA) for its projects in the uranium rich Lake Frome region in South Australia near the Beverley and Four Mile developments. Marmota is continuing to focus its resources on a strategy to develop a pipeline of projects that will offer a combination of short-term and sustainable longer term revenue potential. This strategy will assist in

maintaining Marmota's strong cash position while promoting an expanded program of focused exploration.

#### **Finance**

As at 31 December 2010, Marmota Energy had available funds of \$7.74 million, of which the majority is held in term deposits with Australian banks. During the December Quarter, total net operating expenditure by the company was \$344 thousand.

# **Exploration Activities**

### Junction Dam uranium project (SA)

(Marmota 74.5% of uranium under JV Agreement with Teck Australia Pty Ltd (Teck), PlatSearch NL and Eaglehawk Geological Consulting Pty Ltd)

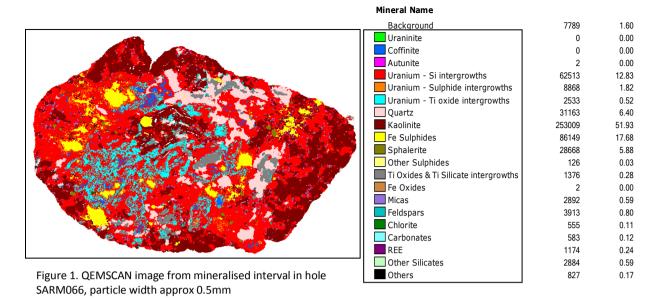
Uranium mineralisation within the Saffron Prospect at Junction Dam is predominantly occurs as coffinite, with uraninite and uranium phosphates (autunite).

These results are considered to be very encouraging for the project as these are similar to the mineral assemblages at the nearby Honeymoon in-situ leach uranium mine.

Two samples from cored drill holes from Phase 2 drilling were analysed using quantitative evaluation of minerals by scanning electron microscopy (QEMSCAN) undertaken at Bureau Veritas Australia Pty Ltd (Amdel Mineral Laboratories). In the scan image (Figure 1), there are fine grained intergrowths of sulphides (pyrite and sphalerite) with the uranium minerals. There are also some fine grained intergrowths of uranium minerals with Ti oxide minerals, classified as Uranium - Ti oxide intergrowths. The spectral analysis indicates that the main uranium bearing mineral in this particle is coffinite (dark blue).

This mineralogical assemblage is indicative of the potential for the mineralisation to be leachable at the Saffron Prospect. Metallurgical testing is planned to be carried out as part of future phases of exploration at Junction Dam.





Assay results returned from hole SARM066 further support the high grades reported previously from gamma logging at Saffron. Grades from assays included a result of 2948 ppm  $U_3O_8$  over the QEMSCAN sample interval. This coincided with an average downhole gamma reading of 698 ppm  $eU_3O_8$  which included a peak gamma reading of 2132 ppm  $eU_3O_8$ .

This is considered very encouraging as the corresponding downhole gamma result appears to underestimate the uranium content over that interval. This implies that a positive disequilibrium factor could be applied to the downhole gamma data.

More diamond core drilling is planned to commence in early 2011 as part of the proposed Phase 3 program.

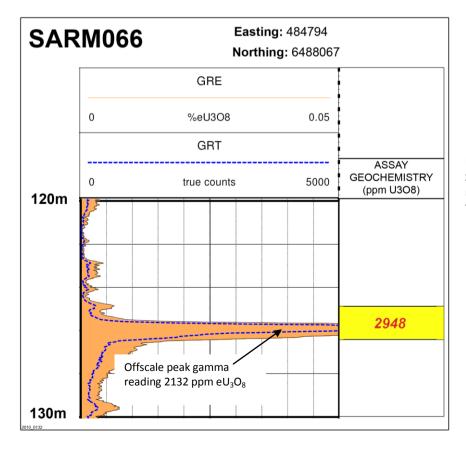


Figure 2: Gamma log from drillhole SARM066 intersecting interval of mineralisation with assay result shown for interval (125.2 – 126.2m).

### Increase in equity interest of Junction Dam uranium rights

Marmota Energy Limited moved to a **74.5**% share of the uranium rights on the Junction Dam uranium project ('the project') in northeastern South Australia.

Marmota has increased its equity interest in the uranium rights by an additional 23.5% through exploration expenditure completed during the 2010 exploration program.

Further exploration is currently underway over the 'Bridget' target area immediately adjacent to the 'Saffron' prospect where high grades of uranium have been intercepted. Ground electromagnetic data which played a significant role in target vectoring processes is being acquired over the Bridget target area and is planned to be completed end of January 2011.

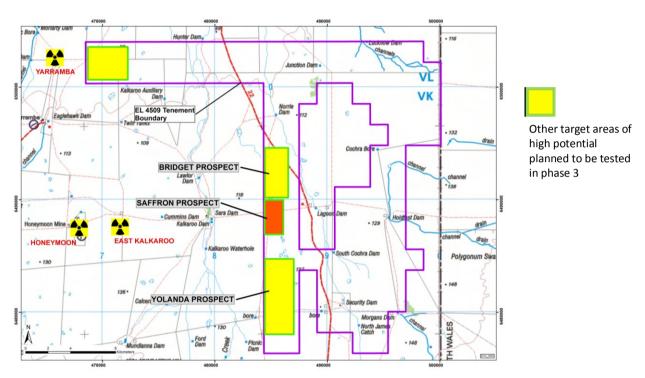


Figure 3. Junction Dam location map

### Frome Embayment uranium projects

(100% Marmota Energy Limited)

During the December quarter Marmota signed 'Work Area Clearance Agreements' with the Adnyamathanha Traditional Lands Association (ATLA) for its projects in the uranium rich Lake Frome region.

The agreements provide Marmota with a framework that will enable the efficient implementation of its exploration programs planned across its tenements for 2011.

The Lake Frome region is considered very prospective for uranium with Marmota tenements in close proximity to the Beverley and Four Mile uranium projects. Other Marmota projects within the region have listed mineral occurrences which the Company will follow up in the course of its planned exploration.

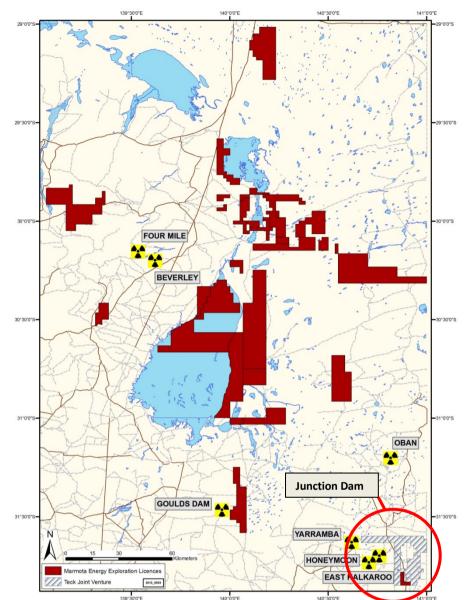


Figure 4: Frome Embayment uranium project locations (red areas) with Junction Dam shown in the grey hash pattern.

### **Nevada (US) Gold Projects**

#### **Angel Wing Project**

During 2010 Marmota Energy announced a significant expansion of its gold project interests with partner Ramelius Resources Limited (ASX: RMS) in Nevada. Marmota can earn 40% of Ramelius' equity in the Angel Wing gold project through incremental contribution totaling \$1.6m over four years. Ramelius will have the right to earn 70% in the Angel Wing gold project.

The Angel Wing project is located in north-eastern Nevada and represents a largely unexplored low sulphidation epithermal gold vein field. The epithermal veins occupy an undrilled north-south directed dilational jog that can be traced over at least 1.5km strike within the project area (Figure 5).

In late December 2010, drilling commenced ahead of schedule at Angel Wing. Eight drill holes were planned, however due to poor weather conditions only five were completed.

Final results from holes completed prior to poor weather conditions are listed in the table below (table 1).

Despite less holes being drilled than planned, the initial results are considered encouraging. The results show that the location and continuity of the main vein is predictable. In addition, additional "blind" veins were encountered that suggest this is a robust system that will ultimately require drill testing both down-dip and along the entire length of the vein.

The drill program at Angel Wing was designed to test:

- the DaVinci vein, where surface channel sampling had returned 10 ft (3 m) of 0.736 oz Au/t (25.2 g Au/t) and 2.6 oz Ag/t (89.2 g Ag/t) and,
- the Goya zone, where silicified sediments with quartz veining returned surface values of up to plus 0.300 oz Au/t (10.3 g Au/t) over coincident chargeable and resistive IP anomalies.

The DaVinci vein is 260 m west of the Goya area and contains two separate veins.

Of particular note were intervals included in the results listed below of 1.5 m of 4.05 g Au/t and 1.5 m of 3.80 g Au/t in hole AW10-03 intersected in the DaVinci vein (Table 1). These mineralised intersections in AW10-03 are separated by intervals of no sample due to the bad ground encountered during drilling. The no sample intervals represent voids or cavities in the limestone host rock. Although mineralisation extends to the end of the hole, it had to be abandoned due to loss of the drill hammer. Drilling is planned to recommence in 2011.

Hole Id	Easting (m)	Northing (m)	Az/Dip	F/Depth (m)	From (m)	To (m)	Interval (m)	g/t Au	g/t Ag
AW10- 01	742744	4618340	090/50	70	21.34	24.38	3.05	No sample Return	
					24.38	28.96	4.57	0.7	6.19
					62.48	65.53	3.05	1.23	1.55

AW10-								No sample	
02	742742	4618341	035/60	119	70.1	73.15	3.05	Return	
					73.15	115.82	42.67	NSR	9.16
				incl.	82.3	94.49	12.19	NSR	23.7
				incl.	83.82	85.34	1.52	NSR	86
AW10-									
03	742744	4618340	090/70	47	16.76	18.29	1.52	1.4	3.02
				(ABN)	32	36.58	4.57	1.96	7.6
								No sample	
					36.58	38.1	1.52	Return	
					38.1	41.15	3.05	2.19	4.55
								No sample	
					41.15	42.67	1.52	Return	
				EOH	42.67	47.24	4.57	0.86	7.77
AW10-									
04	743002	4618355	240/65	152	7.62	9.14	1.52	1.39	0.68
					25.91	28.96	3.05	0.89	4.22
					70.1	71.63	1.52	NSR	44
					76.2	77.72	1.52	NSR	10.3
AW10-									
05	743003	4618354	320/65	68	16.76	21.34	4.57	0.88	3.58
					38.1	42.67	4.57	NSR	4.09

Table 1: Initial results from Angel Wing drilling



Figure 5: Angel Wing and Big Blue projects location map

### Melton Copper-Gold Project (SA)

(Marmota 50% under Melton JV Agreement with Monax Mining Limited)

In May 2010, Marmota Energy completed its maiden drilling program on the highly prospective Melton copper-gold project on SA's Yorke Peninsula. The drilling program was designed to test for the presence of copper mineralisation in the first three of five targets on the project. Seven drill holes were completed, totaling 3378.4 metres.

Marmota Energy considers this region highly prospective for the discovery of new deposits of copper and gold. Recently the prospectivity of the region and in particular the Pine Point Fault has been demonstrated by the discovery of significant copper-gold mineralisation by Rex Minerals at its Hillside Project immediately south of Marmota's Melton project.

The two Melton tenements (EL3911 and EL4000), cover the northern extension of the Pine Point Fault and contain a number of discrete magnetic and gravity features consistent with copper-gold mineralisation elsewhere along the fault. Drill holes MIRDD01 and MIRDD04 in the southern end of the Miranda geophysical target returned results indicating copper mineralisation from assay (Figure 6). Drill holes MIRDD01 and MIRDD04 intersected observable sulphide mineralisation (pyrite and chalcopyrite), interpreted as the potential margin of a large low grade halo of alteration (Figure 8). Assay results (reported previously) returned grades of up to 0.49 % copper in MIRDD01 (best metre interval).

Drill holes in the Miranda target intersected copper mineralisation interpreted to be associated with an amphibole – magnetite–pyrite - chalcopyrite alteration system. The alteration is interpreted to be related to the intrusion of an extensive mafic body into metasediments and granites.

The Miranda Target is a large geophysical anomaly demonstrating a significant magnetic and a larger sized coincident gravity response which extends for more than four kilometres in length (Figure 6). An infill Helimag survey was completed over the Miranda target to improve the structural definition, in particular the southern end of Miranda (Figure 7).

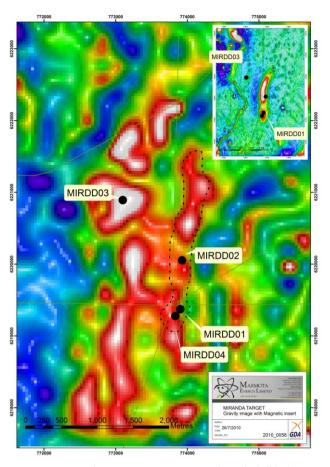


Figure 6: Miranda Bouguer gravity anomaly with drill hole locations and coincident magnetic anomaly inset.

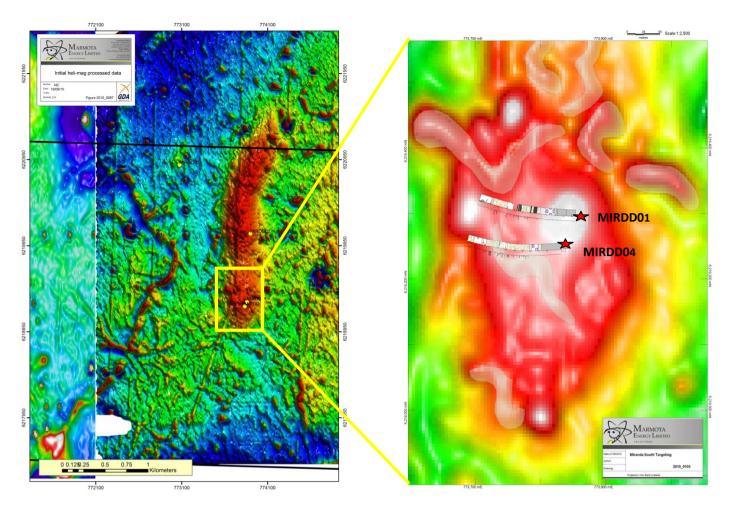


Figure 7: Infill Helimag image with zoom over the southern end of Miranda target.

Target scale interpretations from 3D modelling in conjunction with structural data obtained from the Phase 1 drill program have been completed. The results reinforce the interpretation that the equivalent lithologies and alteration systems may extend at a shallower depth at the southern end of the Miranda target, and west of MIRDD01.

A downhole geophysical survey was completed in MIRDD01 and 04 in late December 2010. Initial results indicate the presence of a conductive zone coincident with the sulphide mineralisation intersected in Phase 1 drilling.

The results of the downhole survey are being processed with the final results due at the end of January 2011.

This will assist in target allocation processes for Phase 2 drilling planned for early 2011.

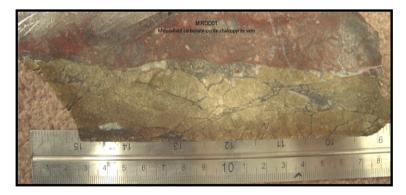


Figure 8: Example of copper mineralisation (chalcopyrite) observed in Miranda drill hole MIRDD01.

### **West Melton Copper-Gold Project (SA)**

(Marmota Energy 100%)

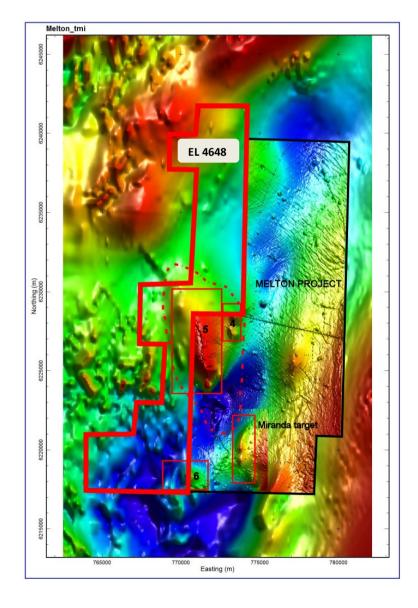
Marmota has moved to increase its tenement footprint on Yorke Peninsula, obtaining a new tenement (EL 4648) immediately adjoining the Melton project 100% owned by Marmota (Figure 9).

Large north westerly trending anomalies can be observed in the magnetic data crossing from the Melton project onto the new exploration licence area. The potential strike length of this significant anomaly extends for approximately 10 kilometres.

High resolution magnetic data acquisition is being planned to better define features of this anomaly outlined by the red dashed line. This new data may also improve the definition of regional structures partially covered by the northern part of the tenement. This large north easterly feature is known to host mineralisation elsewhere along its strike length.

Figure 9: New exploration licence (EL 4648) immediately adjoining the Melton tenement. Large magnetic anomalies trending to the north-west contain targets 4 and 5 planned to be tested in future phases of drilling.

EL 4648 is 100% owned by Marmota.



### Marmota Energy Limited

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# **Proposed Forward Program**

Down hole geophysical logging of MIRDD01 and MIRDD04 at Melton was completed in late December 2010 following crop harvest. The data is being processed with final results due in late January 2011.

Ground EM surveys commenced on Junction Dam over the 'Bridget Target', with acquisition due to recommence in January 2011. The results will be utilised for planning processes in preparation for Phase 3 drill testing planned to commence late March 2011.

Timing	Project	Project
December 2010	MPMelto TE	Pownhole geophysical logging of MIRDD01 and MIRDD04
January 2011		Processing of Downhole geophysical logging of MIRDD01 and MIRDD04
January 2011	Junction Dam DERWAY	<ul> <li>'Bridget' target ground EM</li> <li>Assessment of 'Saffron' exploration results</li> </ul>
January 2011	Western Spur	Rock chip sampling of selected outcrops for iron mineralisation
Late February 2011	Melton	Phase 2 drilling at 'Miranda' copper target
Late March 2011	Junction Dam	Phase 3 drilling at 'Saffron' mineralisation and testing of 'Bridget' Target
April 2011	Angel Wing – Nevada Gold	IP survey

Mr Dom Calandro
MANAGING DIRECTOR

28 January 2010

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, 01/06/10.

Name of entity

Marmota Energy Limited	
ABN	Quarter ended ("current quarter")
38 119 270 816	31 December 2010

### Consolidated statement of cash flows

		Current quarter	Year to date (6
Cash i	flows related to operating activities	\$A'000	months)
			\$A'000
1.1	Receipts from product sales and related		
	debtors	-	-
1.2	Payments for (a) exploration & evaluation	(432)	(1,332)
	(b) development	-	-
	(c) production	-	-
	(d) administration	(300)	(436)
1.3	Dividends received	-	-
1.4	Interest and other items of a similar nature		
•	received	315	395
1.5	Interest and other costs of finance paid	(6)	(5)
1.6	Income taxes paid	-	-
1.7	Other (provide details if material)		
• /	R & D Refund	59	59
	GST	39	50
	Exchange (Loss)/profit	(19)	(19)
	Other	-	-
	Net Operating Cash Flows	(344)	(1,288)
-	1	J.17	
	Cash flows related to investing activities		
1.8	Payment for purchases of: (a) prospects	_	(350)
	(b) equity investments	_	-
	(c) other fixed assets	(3)	(59)
1.9	Proceeds from sale of: (a) prospects	-	-
	(b) equity investments	_	-
	(c) other fixed assets	_	_
1.10	Loans to other entities	(5)	(6)
1.11	Loans repaid by other entities	-	-
1.12	Other (provide details if material)	_	_
<b>-</b>	(F-3)-H- H-1-3 M Macellan)		
	Net investing cash flows	(8)	(415)
1.13	Total operating and investing cash flows	(6)	(12)
,	(carried forward)	(352)	(1,703)
	1	())-/	(71-37

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

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1.13	Total operating and investing cash flows		
	(brought forward)	(352)	(1,703)
	Cash flows related to financing		
	activities		
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)		
	Payments relating to issue of		
	shares/options	-	-
	Net financing cash flows	-	-
	Net increase (decrease) in cash held	(352)	(1,703)
1.20	Cash at beginning of quarter/year to date	8,096	9,447
1.21	Exchange rate adjustments to item 1.20	-	-
1.22	Cash at end of quarter	7,744	7,744

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	265
1.24	Aggregate amount of loans to the parties included in item 1.10	5

### 1.25 Explanation necessary for an understanding of the transactions

The amount at 1.23 above represents non executive directors' fees and executive director's salary (including SGC superannuation), legal fees paid to a legal firm in which a director is a partner and exploration costs reimbursed to a director related entity.

The amount at 1.24 above represents costs to be recovered in relation to shared facilities, from a related entity.

### 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

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

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

\$35,773 contributed by Monax Mining Limited for exploration under joint venture agreement, for all minerals on EL 4000 and EL 3911.

USD 180,012 contributed by Ramelius Nevada LLC for exploration on Big Blue and Angel Wing projects in Nevada.

### Financing facilities available

Add notes as necessary for an understanding of the position.

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

### Estimated cash outflows for next quarter

		\$A'000
4.1	Exploration and evaluation	
		650
4.2	Development	-
4.3	Production	-
4.4	Administration	
		150
	Total	800

## Reconciliation of cash

show	nciliation of cash at the end of the quarter (as in in the consolidated statement of cash to the related items in the accounts is as ws.	Current quarter \$A'000	Previous quarter \$A'000
5.1	Cash on hand and at bank	674	189
5.2	Deposits at call	7,070	7,907
5.3	Bank overdraft	-	-
5.4	Other (provide details)	-	-
	Total: cash at end of quarter (item 1.22)	7,744	8,096

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

## Changes in interests in mining tenements

6.1	Interests in mining
	tenements
	relinquished, reduced
	or lapsed

6.2 Interests in mining tenements acquired or increased

Tenement	Nature of interest	Interest at	Interest at
reference	(note (2))	beginning	end of
		of quarter	quarter
EL 4572 (formerly	Granted	100%	100%
ELA 369/09)			
EL 4625 (formerly	Granted	100%	100%
ELA 67/10)			

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

# **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				
7.2	(description) Changes during quarter				
	(a) Increases through issues				
	(b) Decreases through returns				
	of capital, buy- backs,				
	redemptions				
7.3	<sup>+</sup> Ordinary securities	150,409,490	149,909,490		
7.4	Changes during quarter				
	(a) Increases through issues				
	(b) Decreases				
	through returns				
	of capital, buy-				
-	backs				
7.5	<sup>+</sup> Convertible debt				
	securities				
	(description)				
7.6	Changes during				
	quarter				
	(a) Increases				
	through issues (b) Decreases				
	through				
	securities				
	matured,				
	converted				F 1 .
7.7	<b>Options</b> (description and	28,000,000		Exercise price \$0.40	Expiry date 11/07/12
	conversion	290,000	_	\$0.40	23/12/13
	factor)	400,000	-	\$0.1016	05/03/15
	<i>3</i> /	125,000	-	\$0.083	21/12/15
7.8	Issued during quarter	125,000	-	Exercise Price \$0.083	<i>Expiry Date</i> 21/12/15
7.9	Exercised during quarter				
7.10	Expired during quarter				
7.11	Debentures				I
•	(totals only)				

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

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7.12	Unsecured	
	<b>notes</b> (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 4).
- This statement does /does not\* (delete one) give a true and fair view of the matters disclosed.

Sign here:	(Director/Company secretary)	Date: 28/1/2011
Print name:	Virginia Suttell	

### **Notes**

- 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.
- 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.
- 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.
- The definitions in, and provisions of, *AASB 1022: Accounting for Extractive Industries* and *AASB 1026: Statement of Cash Flows* apply to this report.
- 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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<sup>+</sup> See chapter 19 for defined terms.