



## **ASX ANNOUNCEMENT**

**Thursday, 29 October 2009**

### **Quarterly Activities Report – September 2009**

- **PURCHASE OF HIGH-TECH BOREHOLE LOGGING COMPANY GEOSCIENCE ASSOCIATES, COMPLETED**
- **SUCCESSFUL PLACEMENT AND SHARE PURCHASE PLAN RAISES \$8.66 MILLION PLACING UXA ON A VERY SOUND FINANCIAL FOOTING**
- **AIRBORNE GEOPHYSICAL AND GEOCHEMICAL SURVEYS MAP POSSIBLE EXTENSIONS TO THE URANIUM MINERALISATION DISCOVERED AT CRYSTAL CREEK IN THE NORTHERN TERRITORY**

#### **SUMMARY**

Uranium Exploration Australia Limited (ASX: UXA) has completed the purchase of 100% of the assets and business of Geoscience Associates (Australia) Pty Ltd (GAA), a well established profitable borehole logging business. The GAA acquisition immediately transforms UXA into a diversified mining services and exploration company, with a stronger balance sheet and enhanced growth potential. GAA is continuing to operate as a separately managed contracting business.

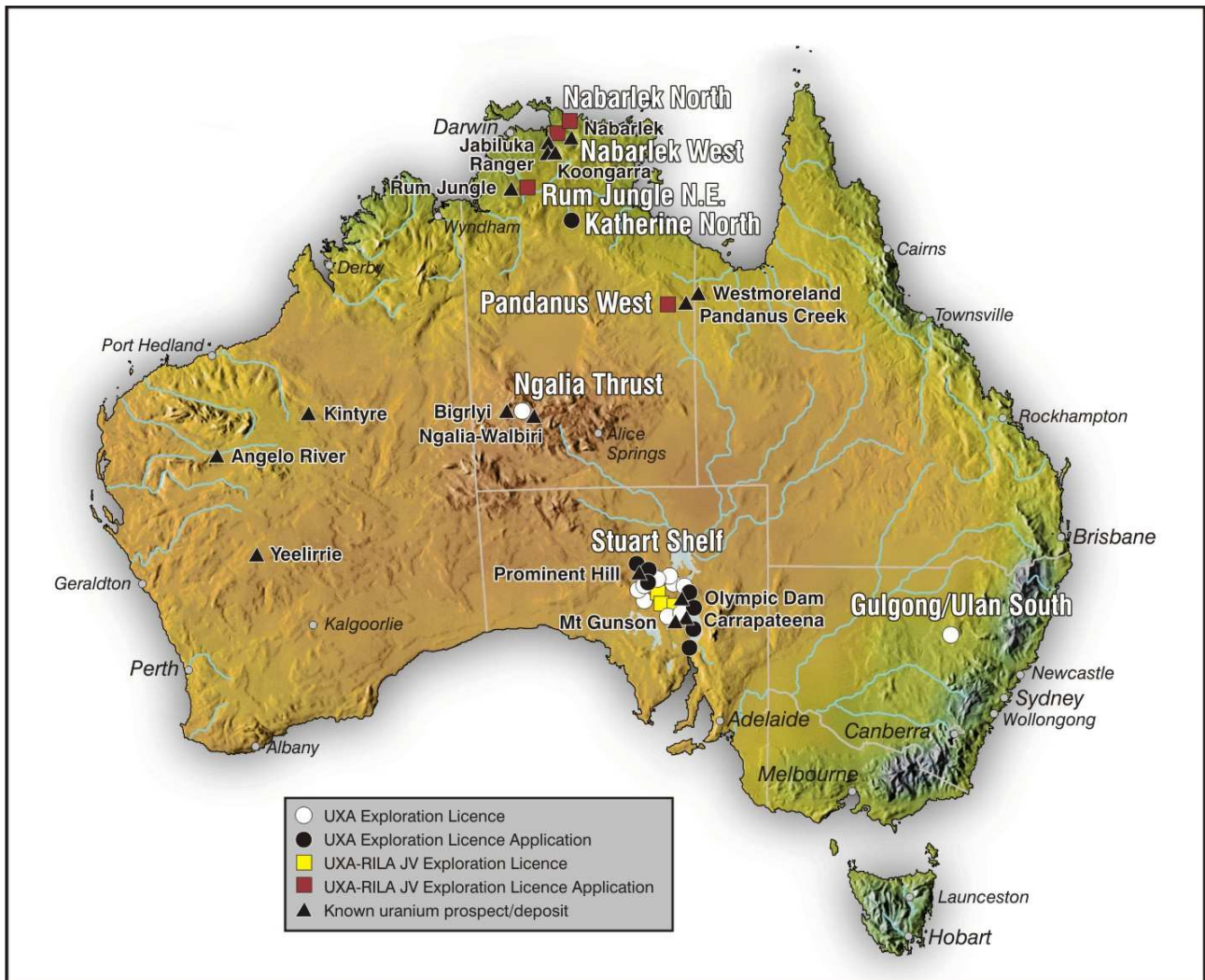
The Company recently completed a program of capital raising through a Placement and very successful Share Purchase Plan ('SPP'), together raising \$8.66 million which provided funding for the completion of the GAA deal and funds for exploration and working capital (see ASX releases on 10<sup>th</sup> August and 24<sup>th</sup> September 2009).

An airborne geophysical survey and a soil sampling program has been completed at UXA's 100% owned Crystal Creek Project in the Northern Territory and both show potential for extensions to the mapped 3,000m long structure and a possible second mineralised structure, lying to the South East. A drilling agreement has been signed and heritage clearances received for an expected mid-November start of drilling.

## EXPLORATION

UXA continued its exploration programme across its tenements in South Australia and Northern Territory (Figure 1). Focus has been on field work at Ngalia Thrust (Crystal Creek discovery) in the Northern Territory and technical review work in South Australia.

**Figure 1**  
**UXA Tenement Location Map**



## Northern Territory

### **Ngalia Thrust (EL 24566)**

This licence is 100% owned by UXA, and is located approximately 320km northwest of Alice Springs and near to Energy Metals' Bigrlyi uranium prospect.

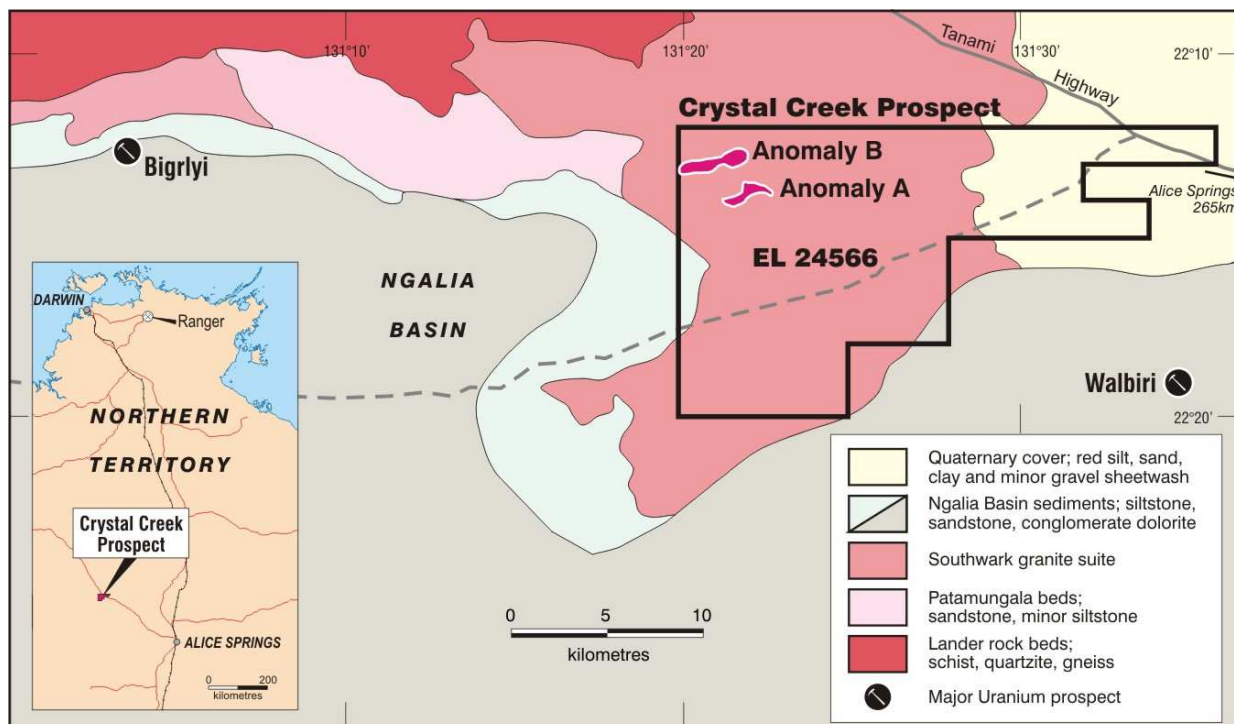
### **Crystal Creek**

In July, the Company announced the discovery of a zone of uranium mineralisation which crops out intermittently over a strike distance in excess of 3,000m (radiometric Anomaly B). Geological mapping has identified this as an east northeast striking uranium bearing fault zone within altered (greisenised) granite. The structure can be traced for a distance in excess of 3,000m and varies in width from 30cm to 12m, averaging 3m.

Early field sampling with a portable XRF machine indicated excellent  $U_3O_8$  concentrations of up to 4,120 ppm (ASX announcement 16<sup>th</sup> July 2009) and this was confirmed by laboratory XRF analyses on rock chip samples (ASX announcement 27<sup>th</sup> August 2009). Uranium mineralisation appears to be associated with ironstone and its distribution is poddy along strike and highly variable across strike. As part of the planned work program at Crystal Creek an airborne geophysical survey and a soil sampling program have been completed and preparations made for an RC drilling program which is now expected to start around mid-November.

### **Results of airborne geophysical survey**

The results of the high resolution airborne geophysical survey flown at Crystal Creek by UTS Geophysics show a very clear radiometric anomaly along the 3,000m long structure at Anomaly B and over adjacent outcrops where altered granite, anomalous in uranium (up to 600 ppm U determined by field XRF measurements) has been mapped. The mineralised structure is also magnetic and the airborne survey reveals a possible second, parallel ironstone structure, approximately 1.5km to the East of Anomaly B. This area is covered by transported sediments and hence the buried structure does not show up in the airborne radiometric survey.



**Figure 2. Crystal Creek Uranium Prospect location map**

## Results of geochemical sampling

Geochemical results from rock chip samples collected at Crystal Creek, Anomaly B confirm the range of uranium values identified by the field portable Niton XRF. These rock chip samples have been crushed and analysed by XRF in a commercial laboratory and confirm values of uranium up to 4,000 ppm U (4,172 ppm U<sub>3</sub>O<sub>8</sub>).

Although a direct correlation cannot be made between the reported uranium values made by the portable Niton XL3t XRF unit and the laboratory XRF values which are determined from much larger rock samples, they both provide a strong confirmation of the presence of uranium in outcrop and also indicate that thorium values are low (Table 1).

Rock chip samples were analysed for a broad range of elements and confirm that uranium alone is strongly anomalous. Values of thorium and rare earth elements (REE) are not strongly anomalous despite the identification of a number of REE minerals in petrographic work.

SEM (scanning electron microscope) studies of surface rock samples, conducted at the University of Adelaide have identified the association of uranium with altered titanium and iron oxide minerals and the possible presence of the uranium bearing minerals brannerite and coffinite. Further samples have been collected for acid leach studies to compare with the XRF analyses.

Results have also been received from a 600 sample soil geochemical grid collected covering the 3,000m outcrop at Crystal Creek. The anomaly pattern largely confirms the results of Niton field XRF and rock chip geochemical sampling (ASX Release 27 August 2009) and shows some adjacent areas of anomalism.

Two strong element association patterns are evident in the soil geochemistry. The elements Pb, Sn and U, and to a lesser extent the rare earth elements Ta and Nb, map areas of altered granite and there is a strong co-incidence with the U<sup>2</sup>/Th image from the airborne geophysical survey. Elements Co, Ni and Cr map the ironstone outcrop and also possibly show the second structure identified in the airborne magnetic survey lying to the South East of the mapped structure at Anomaly B (ASX Release 24 September 2009). These elements also show a possible extension of the mineralised ironstone structure for up to 1,000m to the North East of the outcrop, to the limits of the survey. These additional target areas will be tested in the forthcoming drilling program.

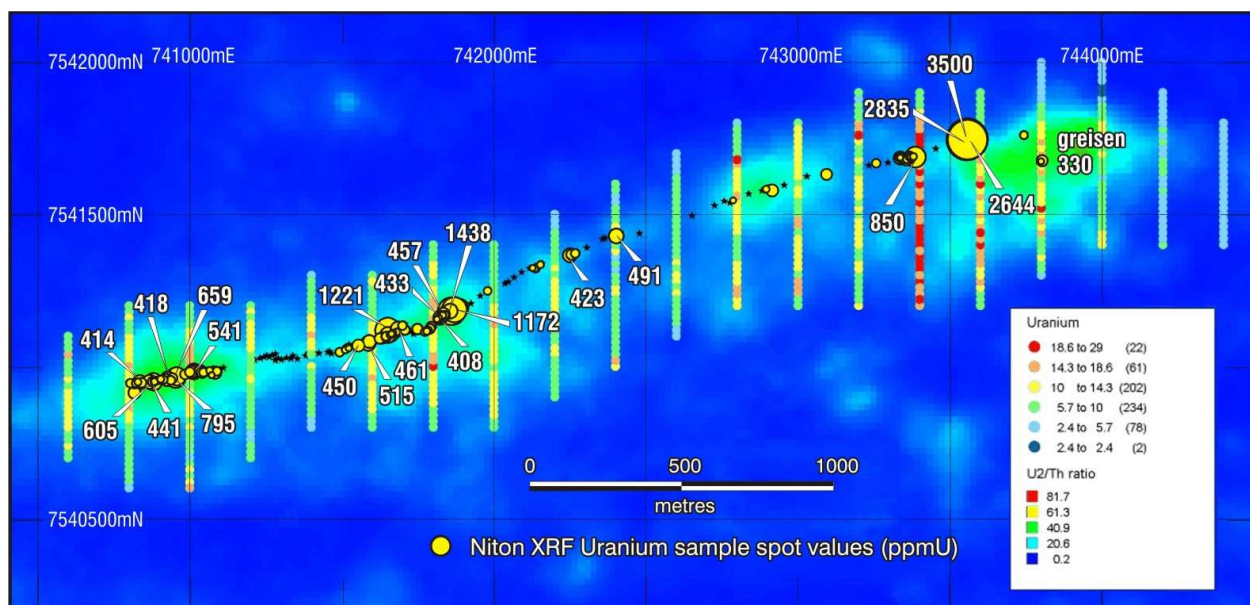
## Crystal Creek Exploration Program

Further rock chip samples have been collected at Crystal Creek and submitted for analysis using an acid digestion (for comparison with XRF values).

A heritage clearance has been received by the Central Lands Council and a drilling agreement has been signed with Arrinoooca Drilling, who have considerable experience drilling in this area and the planned RC percussion drilling program is expected to commence in mid-November.

**Table 1. Laboratory XRF and Niton XRF uranium and thorium values from Anomaly B - at Crystal Creek.**

Sample location	Easting	Northing	XRF U Niton (ppm)	Lab XRF U (ppm)	XRF Th Niton (ppm)	Lab XRF Th (ppm)
83001	743801	7541681	311 (± 61)	80	b.d	15
83002	744018	7541726	30 (± 18)	75	b.d	15
83003	743244	7541397	b.d	60	b.d	25
83004	743801	7541681	311 (± 61)	50	b.d	15
83005	743340	7541697	202 (± 57)	90	64 (± 33)	20
83006	743558	7541753	3500 (± 209)	4000	b.d	20
83007	743441	7541716	374 (± 71)	215	b.d	15
83008	743368	7541692	350 (± 57)	55	b.d	15
83009	743558	7541753	2644 (± 174)	3600	61 (± 40)	15
83010	743356	7541685	262 (± 80)	145	b.d	15
83011	741864	7541191	1438 (± 140)	700	b.d	15
83012	743441	7541716	374 (± 71)	115	b.d	25
83016	743356	7541685	262 (± 80)	130	b.d	20
83017	742814	7541575	b.d	45	b.d	15
83018	740827	7540888	b.d	25	b.d	20
83019	743340	7541697	130 (± 42)	110	39 (± 23)	20
83020	743397	7541695	b.d	25	b.d	20
83021	740781	7540934	b.d	130	b.d	5
83022	741959	7541237	b.d	105	b.d	15
83024	740785	7540909	b.d	50	b.d	25
83025	741864	7541191	457 (± 76)	550	b.d	15
83026	741864	7541191	457 (± 76)	600	b.d	5



**Figure 3. Anomaly B, Crystal Creek: Niton XRF field values (circles - U ppm), soil geochemistry (bars - U ppm) with airborne radiometrics ( $U^2/Th$ ) as background.**

## **Nabarlek North (ELA 24868) and Nabarlek West (ELA 24564)**

These tenements are part of UXA's joint venture with RIL Australia Pty Ltd, subsidiary of Reliance Industries Limited, a major Indian corporation. A recent country meeting was held concerning the two Nabarlek tenements where an application for exploration was accepted by the Traditional Owners. It is anticipated that this will lead to the granting of the tenements in January 2010.

### **South Australia**

The Company is conducting a major technical review of all of its tenements on the Stuart Shelf. The first stage of this review will be completed in late October and from this a revised strategy for exploration on the Stuart Shelf will be developed.

### **Western Australia**

Yeelirrie South East (EL 36/546) and Angelo River North (EL 52/1835) tenements in Western Australia have both been relinquished as a technical review has determined that no further exploration is justified.

## **CORPORATE**

### **Extraordinary General Meeting**

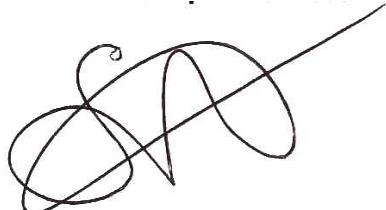
A General Meeting of Shareholders was held in Sydney on 14<sup>th</sup> September. All 7 resolutions were passed:

1. Acquisition of the Assets and Business of Geoscience Associates (Australia) Pty Ltd
2. Approve Allotment and Issue of Shares – Placement
3. Approve Allotment and Issue of Shares to the vendor of GAA
4. Authorise Director Participation in Placement
5. Approval of Future Issue of Share Purchase Plan Shortfall Shares
6. Approval for an Issue of Securities
7. Section 195 Approval

### **Completion of Capital Raising**

A series of Placements were made to Institutional and Sophisticated investors, raising \$5.26 million in new capital. This was completed on 14<sup>th</sup> September following approval by shareholders at the general meeting. The Share Purchase Plan (SPP) closed on 16<sup>th</sup> September and participation by shareholders has greatly exceeded the Company's expectations. Having targeted a \$2 million capital raising through the SPP, the Company received \$3.4 million in applications.

For further information contact:



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## **JORC Compliance Statement**

Technical Information in this report is based on information compiled by Mr Simon Powell who is employed by Uranium Exploration Australia Limited and who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Powell has sufficient exploration 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' ("JORC 2004"). Mr Powell consents to the inclusion in this release of the matters based on his 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

URANIUM EXPLORATION AUSTRALIA LIMITED

ABN

65 112 714 397

Quarter ended ("current quarter")

SEPTEMBER 09

#### Consolidated statement of cash flows

Cash flows related to operating activities	Current quarter \$A'000	Year to date (3 months to Sep 09) \$A'000
1.1 Receipts from product sales and related debtors	-	-
1.2 Payments for		
(a) exploration and evaluation	(243)	(243)
(b) development	-	-
(c) production	-	-
(d) administration	(235)	(235)
1.3 Dividends received	-	-
1.4 Interest and other items of a similar nature received	27	27
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Other	-	-
<b>Net Operating Cash Flows</b>	<b>(451)</b>	<b>(451)</b>
<b>Cash flows related to investing activities</b>		
1.8 Payment for purchases of:		
(a) prospects	-	-
(b) equity investments	-	-
(c) other fixed assets	(3)	(3)
1.9 Proceeds from sale of:		
(a) prospects (UXA-RILA JV)	-	-
(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)	-	-
<b>Net investing cash flows</b>	<b>(3)</b>	<b>(3)</b>
1.13 Total operating and investing cash flows (carried forward)	(454)	(454)

+ See chapter 19 for defined terms.

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1.13	Total operating and investing cash flows (brought forward)	(454)	(454)
<b>Cash flows related to financing activities</b>			
1.14	Proceeds from issues of shares, options, etc.	8,103	8,103
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 proceeds paid in advance)	-	-
	<b>Net financing cash flows</b>	<b>8,103</b>	<b>8,103</b>
	<b>Net increase (decrease) in cash held</b>	<b>7,649</b>	<b>7,649</b>
1.20	Cash at beginning of quarter/year to date	2,827	2,827
1.21	Exchange rate adjustments to item 1.20	-	-
1.22	<b>Cash at end of quarter</b>	<b>10,476</b>	<b>10,476</b>

**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

Non Executive Directors' Fees & Managing Director's remuneration

**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

The company raised funds during the period to partly fund the purchase of Geoscience Associates (Australia) Pty Ltd which was funded in part by an equity placement of shares as already disclosed to the ASX. The issue of listed securities and receipt of some of the equity proceeds took place subsequent to the current quarter

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

N/A

### 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	2,700	-
3.2 Credit standby arrangements	-	-

### Estimated cash outflows for next quarter

	\$A'000
4.1 Exploration and evaluation	750
4.2 Development	-
<b>Total</b>	<b>750</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	10	56
5.2 Deposits at call	10,466	2,771
5.3 Bank overdraft	-	-
5.4 Other	-	-
<b>Total: cash at end of quarter</b> (item 1.22)	<b>10,476</b>	<b>2,827</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	E52/1835	Relinquished	100%	0%
6.2 Interests in mining tenements acquired or increased	-	-	-	-

+ See chapter 19 for defined terms.

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### 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 through returns of capital, buy-backs, redemptions	-	-	-	-
7.3 <b>+Ordinary securities</b>	175,553,337	175,553,337	-	-
7.4 Changes during quarter	86,750,714	86,750,714	10 cents	10 cents
(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> <i>(description and conversion factor)</i>	505,000		<b>Exercise price</b> 17 cents	<b>Expiry date</b> 30 June 2011
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>	-	-		

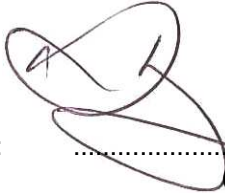
+ See chapter 19 for defined terms.

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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 ~~does not~~\* (*delete one*) give a true and fair view of the matters disclosed.



Sign here: ..... Date: 29 October 2009  
(Director/Company Secretary)

Print name: Kevin Lynn

## 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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