



## FIRST QUARTER ACTIVITY & CASHFLOW REPORT 31 DECEMBER 2010

### HIGHLIGHTS

#### URANIUM EXPLORATION

- Initial Thunderball JORC Uranium Resource due out in February 2011
- New uranium-platinum-palladium-gold discovery at Golden Eye Prospect
  - Hole TPCRC107 – 12m @ 300 ppm U<sub>3</sub>O<sub>8</sub> and 4m @ 1,059 ppb Pt + Pd + Au
  - Hole TPCRC109 – 3m @ 2,779 ppm U<sub>3</sub>O<sub>8</sub> and 12m @ 951 ppb Pt + Pd + Au
- New uranium discovery at Moonraker
  - Hole TPCRC115 – 2m @ 944 ppm U<sub>3</sub>O<sub>8</sub>
- Allamber Project delivers significant uranium and copper intercepts
  - Hole TAL024RC – 7m @ 9.69% Cu
  - Hole TAL032RC – 9m @ 440ppm U<sub>3</sub>O<sub>8</sub> and 2m @ 2.45% Cu
  - Hole TAL033RC – 15m @ 610 ppm U<sub>3</sub>O<sub>8</sub> and
    - 8m @ 436 ppm U<sub>3</sub>O<sub>8</sub> and
    - 6m @ 422 ppm U<sub>3</sub>O<sub>8</sub>
- Ngalia Basin Regional TEMPEST airborne EM survey flown with encouraging results

#### BASE METALS

- Further encouraging drill result at Red Bore prospect, Doolgunna–
  - Hole TRBC032 5m @ 6.59% copper, 1.84g/t gold
- Two IP intense chargeable anomalies at Red Bore project identified; initial drilling intercepts anomalous copper, drilling to re-commence shortly.
- Red Bore DHEM survey to identify sulphide at depth planned for February
- Curara Well VTEM survey identifies 10km conductive horizon along strike from the DeGrussa deposit. Eight anomalies identified for immediate evaluation.

#### CORPORATE

- Strong cash position maintained - \$17 million at quarter end

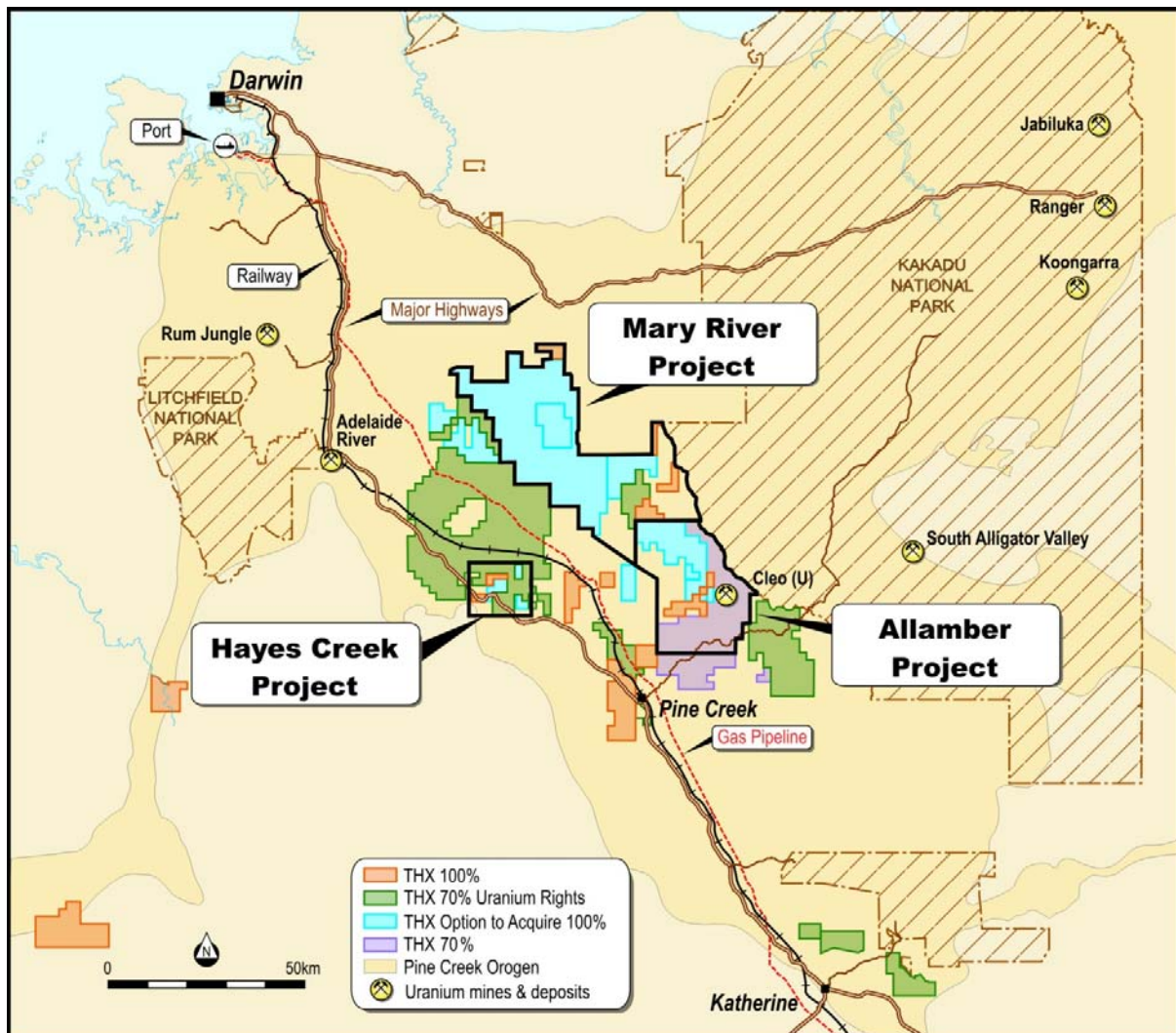
**URANIUM NORTHERN TERRITORY**

During the December 2010 quarter, exploration was conducted at the Hayes Creek, Allamber and Mary River Projects in the Pine Creek Region and at the Ngalia Basin Project, north-west of Alice Springs. This work involved reverse circulation (RC) and diamond drilling, the flying of a regional electro-magnetic survey and geological mapping and sampling. A number of significant results were returned and are detailed below.

**PINE CREEK REGION**

Thundelarra’s Pine Creek Regional Project covers over 3,500 square kilometres of the prospective central Pine Creek Orogen between the South Alligator Valley and Rum Jungle Uranium Fields. The Company holds, or has the option to acquire, full ownership of approximately half of this area with joint venture interests ranging from 70% of the uranium rights to 80% of full mineral rights in the remaining tenure.

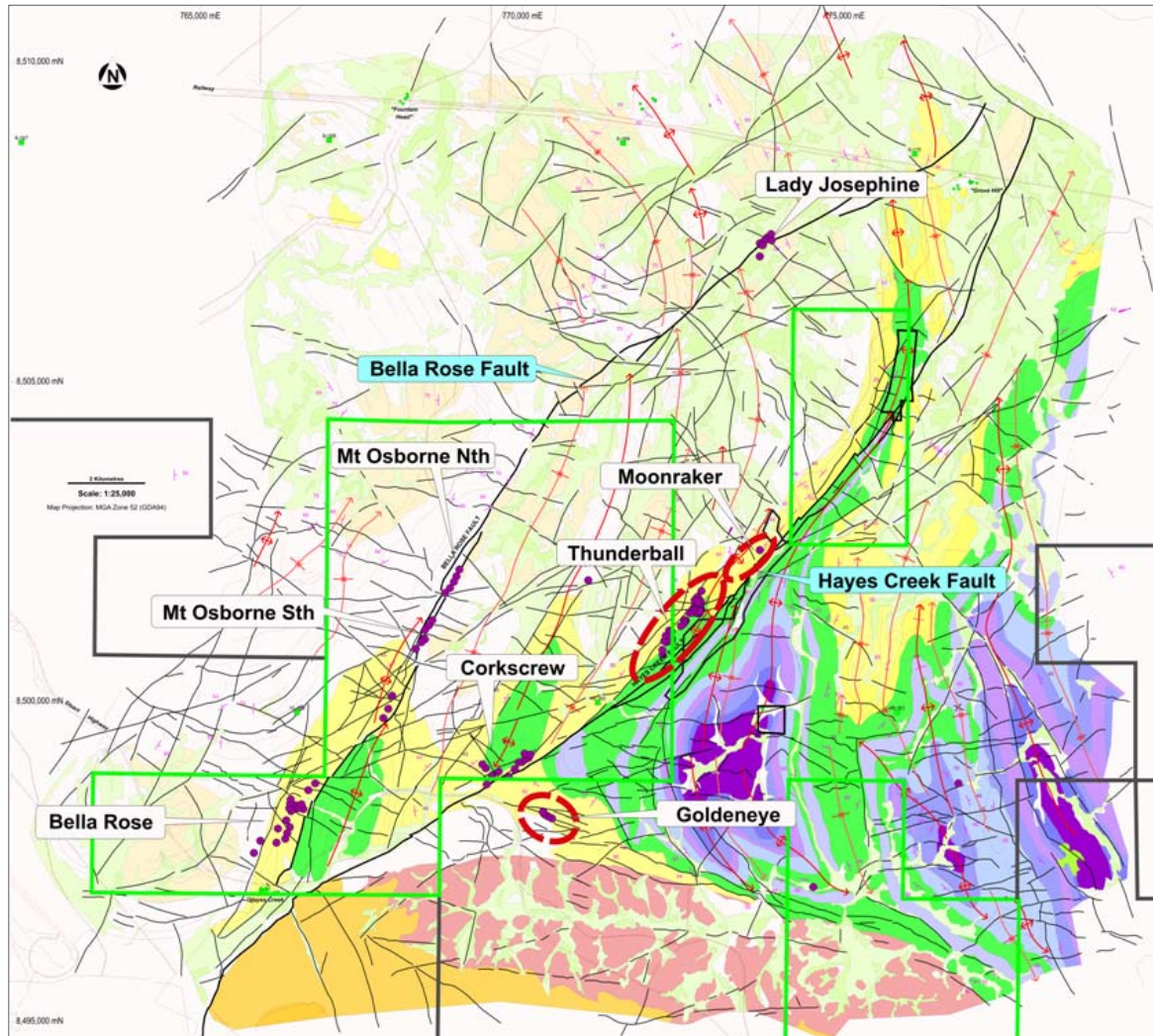
**Pine Creek Tenements and Project Locations**



### Hayes Creek Project

In the Hayes Creek Project area, which covers only a small part of the Pine Creek Regional Project, Thundelarra has discovered significant new unconformity related structurally controlled uranium mineralisation similar in style to other deposits within the Pine Creek Uranium Province. Exploration is at an early stage but these discoveries including the Thunderball discovery have greatly enhanced the uranium prospectivity of the whole central Pine Creek Region and in particular the Hayes Creek structural corridor that can be traced for over 50 kilometres within Thundelarra's tenure.

Hayes Creek Uranium Project Geology Map



During the December 2010 quarter, Thundelarra drilled an additional 31 RC holes (4076 metres) and 1 diamond hole (183 metres) in the Hayes Creek project area. At the Thunderball prospect, angle diamond hole TPCDD138 was completed, designed to provide additional information regarding the orientation of the high grade uranium mineralisation within the Lower Zone. Unfortunately the hole deviated and failed to intersect the target zone but valuable structural information regarding the orientation of the main deformation zone was gained and will be used to better site future holes.

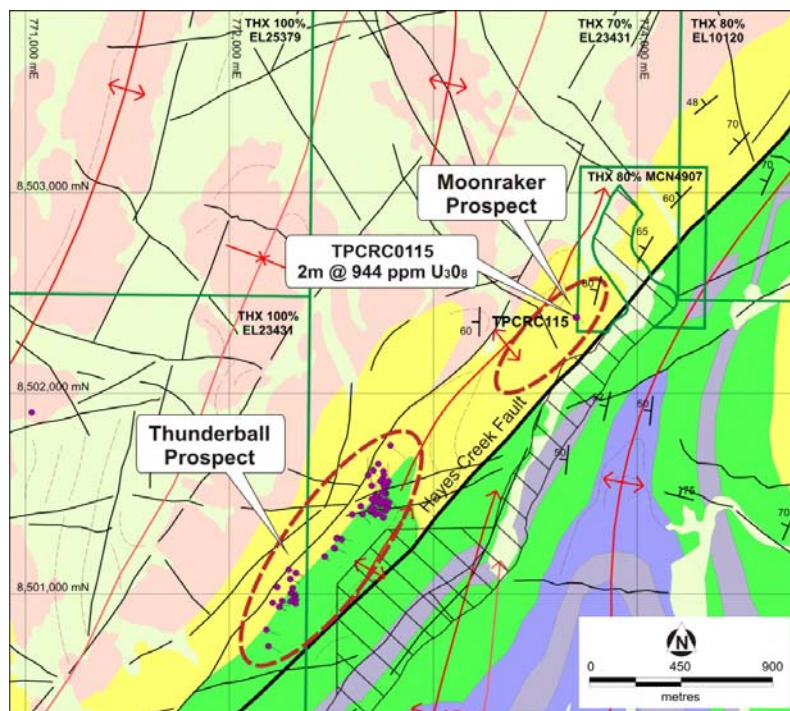
SRK Consulting was engaged during the quarter to complete a JORC Resource Estimate for the Thunderball prospect. The results of the geological and ore body modelling were recently presented

to the Company and this modelling has confirmed that both the Upper and Lower Zones constitute robust, coherent bodies of uranium mineralisation that are expected to support JORC compliant resources. Thundelarra will announce details of the resource when the consultants report is received, which is expected to be in early February.

Drilling at prospects along the Bella Rose Fault Zone generated a number of significant intercepts. Hole TPCRC130 at the Mt Osborne Prospect returned the best intercept of 3 metres at 894 ppm  $U_3O_8$ . The uranium mineralisation is associated with a steeply dipping shear zone within sediments and tuffaceous units of the Mt Bonnie and Burrell Creek Formations. At this stage continuity along strike and down dip has not been demonstrated, but further drilling focused on areas of interpreted structural complexity is planned.

Along the Hayes Creek Fault Zone drill testing of the Moonraker and Goldeneye prospects also returned significant results. A single RC hole, TPCRC115, drilled at the Moonraker prospect, intersected **2 metres at 944 ppm  $U_3O_8$**  from 41 metres within strongly oxidised black shales of the Mt Bonnie Formation. This prospect covers a low order surface radiometric anomaly located approximately one kilometre north-east and along strike from the Thunderball uranium discovery. The intensely deformed Thunderball anticlinal axis occurs just to the west of the drill intercept and the mineralisation occurs in a rock type similar to the carbonaceous shale unit that hosts the Upper Zone mineralisation at Thunderball. Deeper drilling is now planned to test for possible high grade mineralisation similar to Thunderball beneath the initial Moonraker intercept.

**Moonraker Uranium Prospect Geology Map**



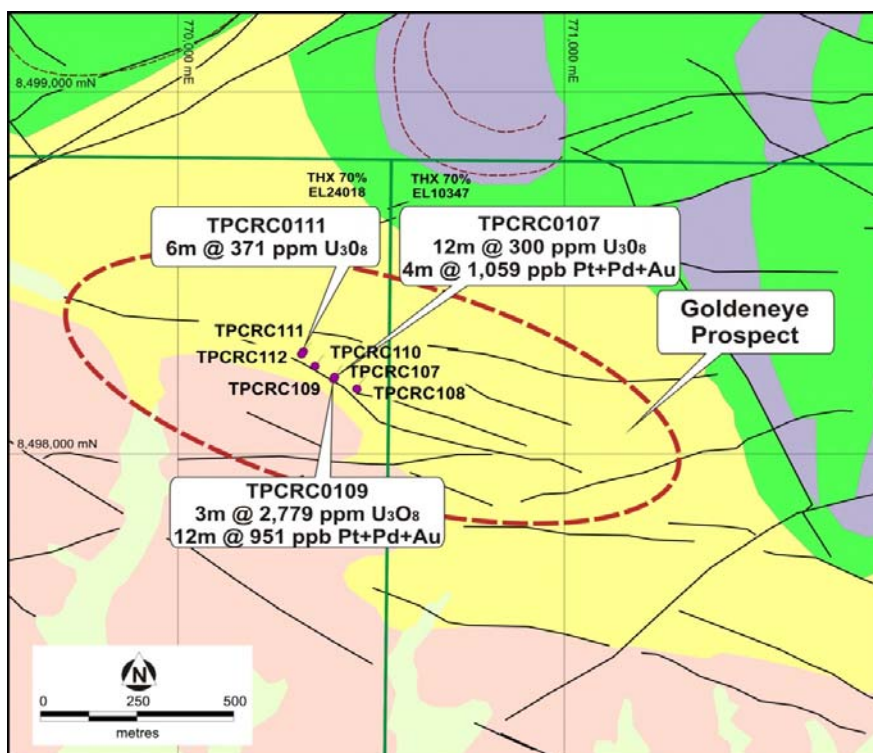
At the Goldeneye Prospect, located four kilometres south-west of Thunderball, four of six RC holes drilled produced robust intersections. This prospect covers a 500 metre long north-westerly trending low order radiometric anomaly within structurally deformed sediments of the Mt Bonnie Formation. Significant intercepts include:

- TPCRC107 – 12 metres at 300 ppm  $U_3O_8$  including 1 metre at 1,227 ppm  $U_3O_8$
- TPCRC109 – 3 metres at 2,779 ppm  $U_3O_8$  including 1 metre at 7,481 ppm  $U_3O_8$
- TPCRC111 – 6 metres at 371 ppm  $U_3O_8$  including 1 metre at 970 ppm  $U_3O_8$

Importantly, for the first time within the Hayes Creek Project area, Thundelarra has discovered anomalous gold, platinum and palladium associated with the uranium mineralisation. The most significant intercepts include:

- TPCRC107 – 4 metres at 1,059 ppb Pt+Pd+Au
- TPCRC109 – 12 metres at 951 ppb Pt+Pd+Au including 4 metres at 1,604 ppb Pt+Pd+Au

Goldeneye Uranium Prospect Geology Map



Thundelarra has now intersected significant uranium mineralisation at five prospects within the Hayes Creek Project area and a number of similarities with the high grade uranium deposits of the South Alligator Uranium Field (SAUF) have become evident. This field located some 100 kilometres east of Hayes Creek and now within the Kakadu National Park, is a narrow northwest trending belt in the headwaters of the South Alligator River. A total of 13 mines produced 146,000 tonnes of ore averaging 1,200 ppm – 2.5%  $U_3O_8$  between 1955 and 1964. Some gold was also produced. The mineral field contains the undeveloped Coronation Hill uranium-gold deposit (344,170 tonnes averaging 5,370 ppm  $U_3O_8$  and 9.95 g/t gold) and the associated gold-platinum-palladium resource (3.9 million tonnes grading 5.12 g/t gold, 0.21 g/t platinum and 0.56 g/t palladium).

The unconformity related uranium deposits of the SAUF lie within a northwest-trending structural belt of Palaeoproterozoic metasedimentary and metavolcanic rocks similar to the geological formations of the Hayes Creek Project area. All the major deposits are within a well defined fault system and were formed in dilational zones at fault bends or intersections. The uranium discoveries made by

Thundelarra at Hayes Creek all occur on or adjacent to the extensive north-east trending Hayes Creek and Bella Rose structural corridors and the uranium mineralisation occurs within brittle-ductile shear zones and breccia zones with the highest grade mineralisation probably located within dilational jogs.

In 2011 drilling will be directed towards following up the significant intercepts returned during 2010, together with evaluation of as yet untested sections of the prospective Hayes Creek corridor which strikes for over 50 kilometres on Thundelarra's greater Pine Creek tenure.

#### Hayes Creek Project Significant Drill Intercepts December Quarter 2010 (>100ppm U<sub>3</sub>O<sub>8</sub>)

Hole No.	East	North	Dip/Azi	From-To (m)	Interval (m)	U <sub>3</sub> O <sub>8</sub> (ppm)	Au+Pt+Pd (ppb)
<b>MT OSBORNE PROSPECT</b>							
TPCRC130	768100	8500300	-60/120	99-102	3	894	BLD
TPCRC131	768094	8500305	-66/120	134-135	1	363	BLD
TPCRC132	7618123	8500370	-60/120	124-127	3	835	BLD
<b>GOLDEN EYE PROSPECT</b>							
TPCRC107	770406	8498212	-60/24	16-20	4	33	<b>1,059</b>
and				35-47	12	300	127
including				39-40	1	<b>1,227</b>	89
and				51-52	1	34	<b>915</b>
TPCRC109	770403	7498205	-90/0	34-36	12	42	<b>951</b>
and				40-43	3	28	<b>906</b>
and				44-47	3	<b>2,779</b>	431
including				44-45	1	<b>7,481</b>	<b>1,106</b>
TPCRC111	770325	8498282	-60/31	24-28	4	110	BLD
and				29-35	6	371	BLD
including				33-34	1	970	BLD
TPCRC112	770321	8498275	-90/0	15-19	4	139	BLD
<b>MOONRAKER PROSPECT</b>							
TPCRC115	770406	8498212	-60/24	41-43	2	944	27
including				41-42	1	<b>1,510</b>	42

**Allamber Project**

In October Thundelarra completed an 18 hole RC program (1,667 metres) to evaluate a number of priority targets within the Allamber Uranium Joint Venture area. The program was designed to follow-up a number of significant drill intercepts returned from an RC program completed in 2009 and to test new targets generated by Thundelarra's field work during the year. This drilling intersected significant uranium and copper mineralisation at the Allamber Uranium Project. The Allamber Project is located within the eastern portion of the Pine Creek Orogen, and comprises a granite and metasediment package that is prospective for structurally controlled uranium and base metal mineralisation.

At the Lucas prospect, uranium and copper mineralisation was identified in three reverse circulation (RC) drill holes located to the west of resource drilling completed by Excelsior Gold Ltd (previously Atom Energy) in 2007.

Uranium mineralisation associated with elevated copper levels appears to be controlled by a combination of north-easterly trending structures and the presence of microgranitic dykes which intrudes these structures. Drilling during the quarter by Thundelarra intersected seven metres of malachite in the oxidised zone of TAL024RC where a dyke intrudes the faulted contact between the Allamber Springs Granite to the west, and a series of metasediments to the east. Significant intercepts include:

- **TAL024RC – 7 metres at 9.69% Cu**
- **TAL025RC – 12 metres at 328ppm U<sub>3</sub>O<sub>8</sub>**
- **TAL035RC – 11 metres at 405ppm U<sub>3</sub>O<sub>8</sub> including 1 metre at 1,945ppm U<sub>3</sub>O<sub>8</sub>  
– 12 metres at 353ppm U<sub>3</sub>O<sub>8</sub> including 1 metre at 1,710ppm U<sub>3</sub>O<sub>8</sub>**

At the Cliff South prospect two out of three RC holes returned very encouraging results. Significant intersections include:

- **TAL032RC – 9 metres at 440ppm U<sub>3</sub>O<sub>8</sub> including 1 metre at 1,368ppm U<sub>3</sub>O<sub>8</sub>  
and 2 metres at 2.45% Cu**
- **TAL033RC – 15 metres at 610ppm U<sub>3</sub>O<sub>8</sub> including 1 metre at 3,926ppm U<sub>3</sub>O<sub>8</sub>  
– 8 metres at 436ppm U<sub>3</sub>O<sub>8</sub> including 1 metre at 1,627ppm U<sub>3</sub>O<sub>8</sub>  
– 6 metres at 422ppm U<sub>3</sub>O<sub>8</sub> including 1 metre at 1,076ppm U<sub>3</sub>O<sub>8</sub>**

The drill holes were designed to test a north-south trending structure in addition to cross-cutting north-easterly structures. A series of microgranite dykes and sulphidic sediments (displaying chlorite alteration) was intersected. Drill hole locations are shown on the following plan with significant uranium and copper intercepts presented in the Table below.

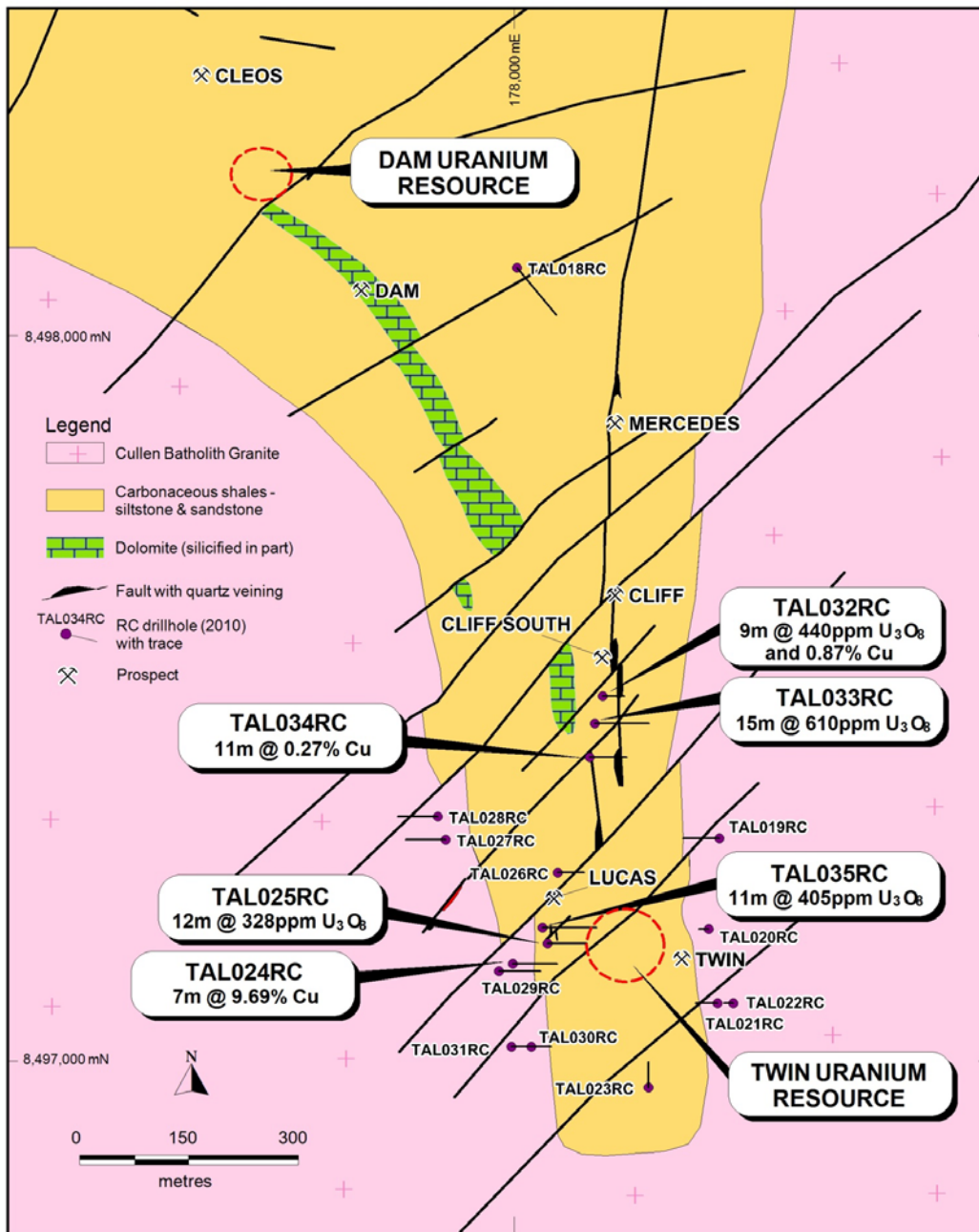
The results from this limited drilling program are particularly important because:

- The broad uranium intercepts at the Cliff South prospect occur in an area largely untested by historical drilling and well away from the known uranium resources of Twin and Dam. Importantly, the uranium mineralisation intersected in the drilling does not have a surface radiometric response.
- The high grade uranium mineralisation appears to be associated with a north-east trending fractural system which was not targeted by historical drilling. These numerous north-east structures possibly also control the highest grade mineralisation within the known resources at Twin and Dam.
- The strong uranium-copper mineralisation discovered at both the Cliff South and Lucas prospects appears to be related to late stage granitic intrusions. This style of mineralisation

has the potential to host a large tonnage uranium-copper resource and will be a target for exploration in 2011.

Thundelarra, through its wholly owned subsidiary, Element 92 Pty Ltd holds a 70% interest in the Allamber Joint Venture project with Excelsior Gold Limited retaining a 30% contributing interest. The project tenements, covering some 260 square kilometres contain the Cleo's deposit (Twin and Dam resources) which hosts a near surface JORC compliant inferred resource totalling 1.4Mt at 340ppm U<sub>3</sub>O<sub>8</sub> (at 100ppm cut-off) containing 960,000lbs U<sub>3</sub>O<sub>8</sub>.

Allamber Project Drill Hole Location Map





## Allamber Project Table of Significant Drill Intercepts 2010

Hole No	East	North	Dip / Azi	From - To (m)	Interval (m)	U <sub>3</sub> O <sub>8</sub> (ppm)	Cu (%)
TAL018RC	178004	8498093	-60 / 140	35 - 38	3	289	0.01
and				69 - 71	2	242	BLD
and				76 - 78	2	236	BLD
and				108 - 109	1	206	BLD
and				160 - 162	2	168	BLD
TAL024RC	177998	8497134	-60 / 90	13 - 20	7	23	<b>9.69</b>
and				35 - 37	2	328	0.06
and				99 - 100	1	211	0.03
TAL025RC	178046	8497162	-60 / 90	27 - 39	12	328	0.04
and				41 - 45	4	159	0.10
and				49 - 65	16	243	0.04
including				64 - 65	1	<b>1,273</b>	0.21
and				89 - 93	4	132	0.03
TAL026RC	178060	8497260	-60 / 90	20 - 22	2	160	0.03
TAL032RC	178122	8497503	-60 / 90	43 - 52	9	440	<b>0.87</b>
including				44 - 46	2	162	<b>2.45</b>
including				47 - 48	1	<b>1,368</b>	1.10
TAL033RC	178111	8497465	-60 / 90	46 - 48	2	302	0.04
and				56 - 59	3	127	0.04
and				76 - 91	15	<b>610</b>	0.13
including				88 - 89	1	<b>3,926</b>	0.69
and				108 - 116	8	436	0.03
including				111 - 112	1	<b>1,627</b>	0.06
and				123 - 129	6	422	0.04
including				123 - 124	1	<b>1,076</b>	0.11
and				132 - 133	1	<b>1,001</b>	0.07
and				139 - 140	1	539	0.03
and				145 - 149	4	419	0.04
TAL034RC	178104	8497419	-60 / 90	42 - 53	11	27	0.27
TAL035RC	178039	8497184	-60 / 90	37 - 48	11	405	0.01
including				45 - 46	1	<b>1,945</b>	0.01
and				56 - 64	8	229	0.06
and				87 - 99	12	353	0.07
including				89 - 90	1	<b>1,710</b>	0.23
and				104 - 107	3	170	0.08
and				124 - 128	4	222	0.02
and				136 - 140	4	116	0.01
and				143 - 148	5	239	0.02

**Mary River Project**

The Mary River Project is an extensive area that contains Thundelarra's managed tenements on the eastern side of the Pine Creek Regional Project. In September 2010, an 18,000 line kilometre detailed airborne radiometric and magnetic survey was flown over the area and the adjacent Allamber Project. The survey was flown at 70 metre line spacing and 30 metre height using the Thompson Airtractor and was designed to locate uranium mineralisation along the prospective contact between the intrusive Cullen Granite and the Proterozoic metasediments (Cleo style of mineralisation) and to provide a structural framework for targeting future exploration particularly in areas of cover. Approximately 15 kilometres strike of the north-eastern extension of the Hayes Creek Fault Zone was also covered by the survey, and this corridor will be one of the main targets for exploration in 2011. It is important to note that the Mary River Project area, where Thundelarra has the right to all commodities, is not only prospective for uranium but also for gold and base metals.

The interpreted results from this survey will be used to plan Thundelarra's extensive drilling program scheduled to commence on the Mary River Project in May 2011.

**NGALIA BASIN PROJECT**

The Ngalia Basin Regional TEMPEST Airborne EM survey was completed during the quarter and the final data products received. Interpretation of these products have begun and preliminary results are very encouraging. A grant of \$100,000 was obtained from the NT Government for this survey, which covered the full extent of the Ngalia Basin Project area (3,300 sq km).

The survey was flown at a number of line-spacings, as per the table below.

Area	Line Spacing	Line Direction	Line Km
1	2560 m	045 - 225	1364
2	5120 m	135 - 315	81
3	1280 m	045 - 225	436
4	320 m	045 - 225	386

Areas 1 & 2 comprise the "regional" lines that cover the entire Project area. High resolution "infill" lines (Areas 3 & 4) are centred over the **Afghan Swan** prospect, where extensive uranium mineralisation was discovered by THX in 2010 (see ASX announcement 28 October 2010).

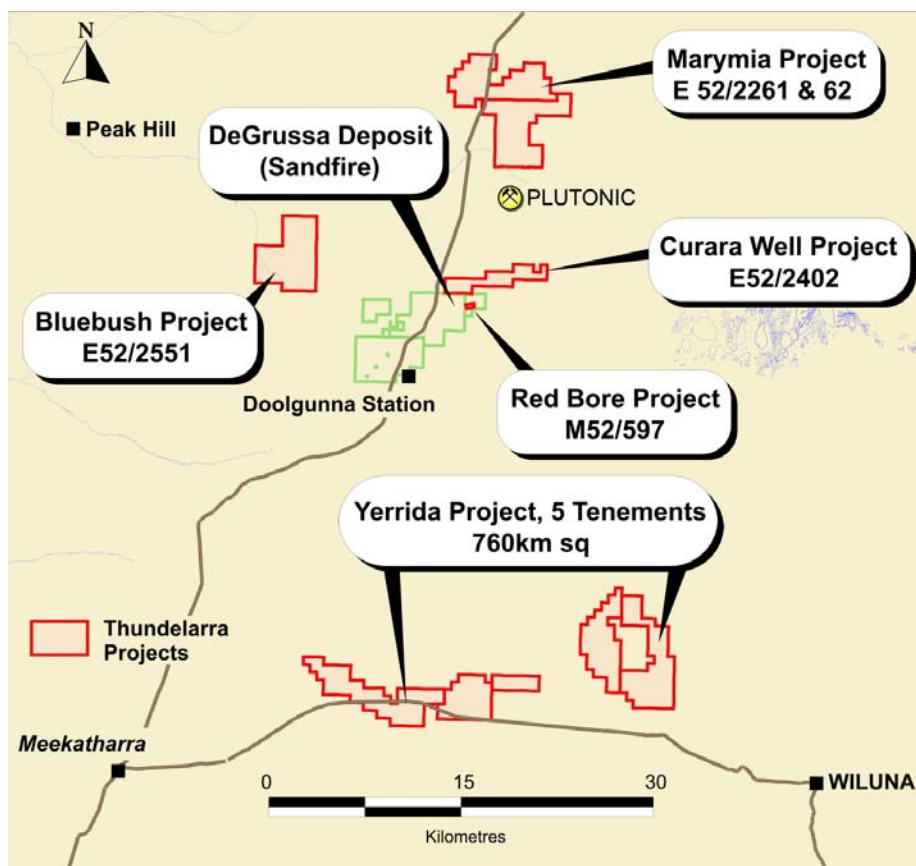
## BASE METALS

### Doolgunna Regional Project

The Doolgunna region, Western Australia has been the focus for base metals exploration during the quarter. Thundelarra's interest in this area has been sparked by the May 2009 discovery of the DeGrussa deposit by Sandfire Resources NL, where resources currently total 10.67 Mt at 5.6% copper and 1.9g/t gold.

Thundelarra pegged an initial tenement in 2009 and has subsequently built up its interests in the region so that it now has 5 project areas, with tenements covering over 1,400 square kilometres. During October the company exercised an option to earn a 60% interest in the Red Bore project (M52/597) and an 80% interest in four tenements at Yerrida (E51/1418, E51/1357, E51/1358 and E51/1359).

**Doolgunna Regional Projects and Tenement Map**



Sandfire's DeGrussa deposit is widely described as being of volcanogenic massive sulphide (VMS) origin, and is hosted within the Proterozoic aged Narracoota Volcanics, a package of mafic dominated volcanic and volcanoclastic rocks forming part of the Bryah Basin. The DeGrussa mineralisation is hosted within massive sulphide and displays unusually high copper and gold tenor, with only minor associated lead and zinc, which are normal components to VMS mineralising systems worldwide. Thundelarra considers the DeGrussa mineralisation to be analogous to Besshi style VMS occurrences. These are typically developed within mafic rocks in oceanic rift environments such as at Besshi, Japan, the Matchless belt, Namibia or at the currently active Salton Sea, Gulf of California

area. In each of these areas heat from mafic volcanism drives hydrothermal fluid systems which then deposit sulphide and metals at the sea floor when they exit and are chilled by seawater. At Salton Sea exhalative fluids deposit their metal content in pipes and chimneys and into the seawater as 'black smokers' with sulphide sediment collecting in the immediate proximity.

Thundelarra's exploration strategy in the Doolgunna region is to target:

- VMS occurrences close to, and in the same geological setting as the DeGrussa discovery (for example at Red Bore, Curara Well and Bluebush);
- Structurally hosted or replacement style sulphide and Sedex occurrences along major structures and within marginal or overlying sediments (for example at Yerrida, Marymia)

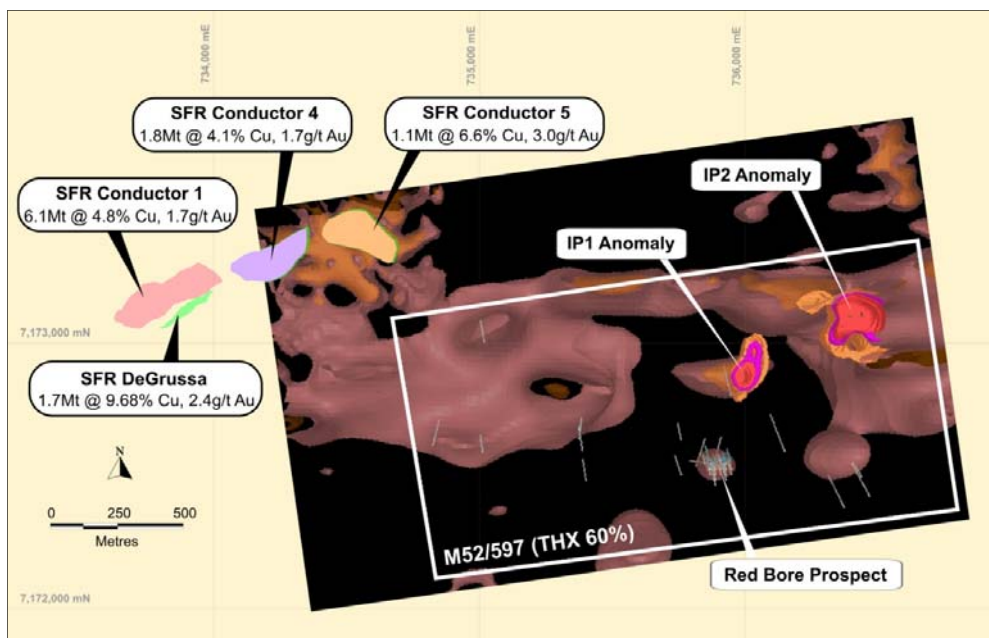
Thundelarra plans to acquire further tenure in the region as opportunities arise, and is building its regional geological database to help identify those areas of high prospectivity.

### Red Bore Project

The Red Bore project comprises granted mining lease M52/597 where the company has the right to earn a 60% equity. The tenement covers 2 square km and has variable outcrop of mafic rocks of the Narracoota Formation with the southern spine of the tenement consisting of shales and sandstones of the Karalundi Formation.

The licence is situated 500m east of Sandfire's DeGrussa deposit and hosts a similar package of Narracoota Volcanic mafic rocks. The DeGrussa resources and Red Bore tenement area are shown in the figure below.

**Red Bore Project and Sandfire Nearby DeGrussa Deposits**



Since entering an agreement over the Red Bore tenement in April 2010 Thundelarra has systematically carried out detailed geophysical and geological investigations over the entire tenement area. Magnetic, gravity, electromagnetic and induced polarisation (IP) surveys have been completed.

This work has contributed to an understanding of the geology, alteration and mineralisation processes within the tenement and helped outline exploration targets for detailed assessment.

During the quarter Thundelarra drilled 18 holes for 3349 metres at the Red Bore prospect and magnetic, gravity and IP anomalies.

### Red Bore Prospect

The Red Bore tenement secures a base metal gossan first identified in the 1960's by Doolgunna station owner R. Davies. The historic discovery gossan area, called the Red Bore prospect has been the focus of much of Thundelarra's drilling activity within the Red Bore tenement

Thundelarra's phase one September drilling of the Red Bore prospect intercepted significant copper – gold sulphide mineralisation with results including

- **Hole TRBC003– 8m at 3.41% copper & 0.10g/t gold from 74m**
- **Hole TBRC005– 17m at 11.7% copper & 1.73g/t gold from 29m**  
**Including– 7m at 21.5% copper & 2.30g/t gold from 32m**

Drilling to date has defined broad zones of alteration and sulphide mineralisation, characteristic of a large volcanogenic massive sulphide system. The mineralisation has a strong gold-copper-silver and Sn-Mo-Se-Co-As-Te association and has a striking visual and geochemical similarity to the nearby DeGrussa deposit.

Three deeper RC holes have been completed as part of a phase two drilling programme. These have been sited to act as platforms for downhole electro-magnetic surveying, in order to test the down plunge position of the Red Bore prospect mineralisation. Significant assay results are tabled below.

**Table 1: Red Bore Prospect RC Drill Results (Phase 2).**

Hole	Azimuth/dip	Metres East	Metres North	From/To	Interval	Grade	
						Copper	Gold
TRBC032	268°/-65°	735925	7172540	25-39m	14m	2.50%	1.01g/t
<b>INCLUDING</b>				<b>25-30m</b>	<b>5m</b>	<b>6.59%</b>	<b>1.84g/t</b>
<b>AND</b>				78-81m	3m	0.11%	0.00g/t
TRBC045	180°/-60°	7359100	7172640	190-191m	1m	0.27%	0.10g/t

Note: Intercepts have been separated into

(a), significant intercepts (in bold), calculated using a 0.7% lower Copper cut off and a 1m maximum internal dilution

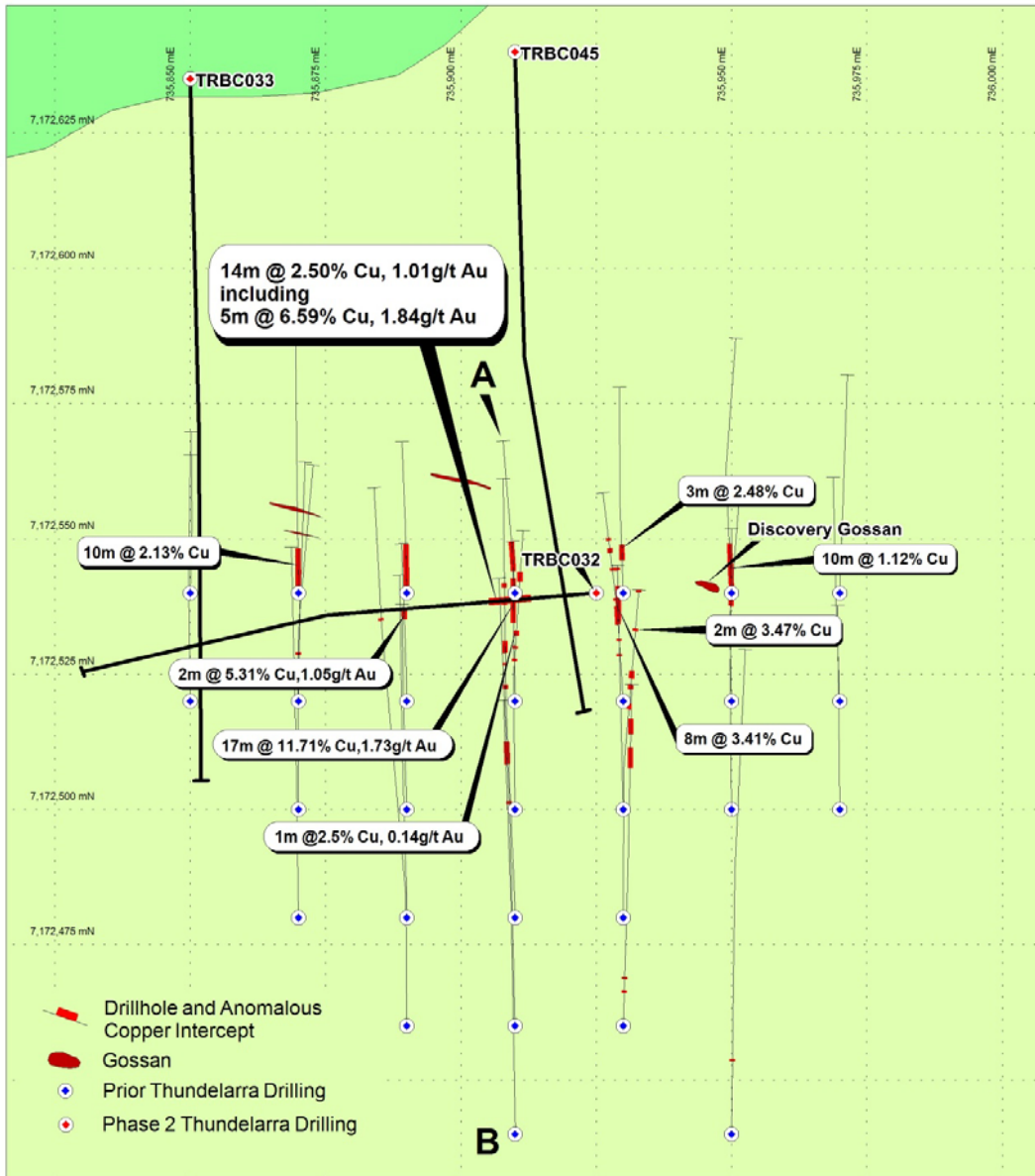
(b), anomalous zone, calculated using a 0.1% copper lower cut, and maximum 1m internal dilution.

Gold results are by fire assay and copper by special mixed acid digest (SMAD) and ICP-OES/MS.

NAR = no anomalous results with copper assay below 0.1%.

A plan view of drilling and a cross section along 735910E is shown below.

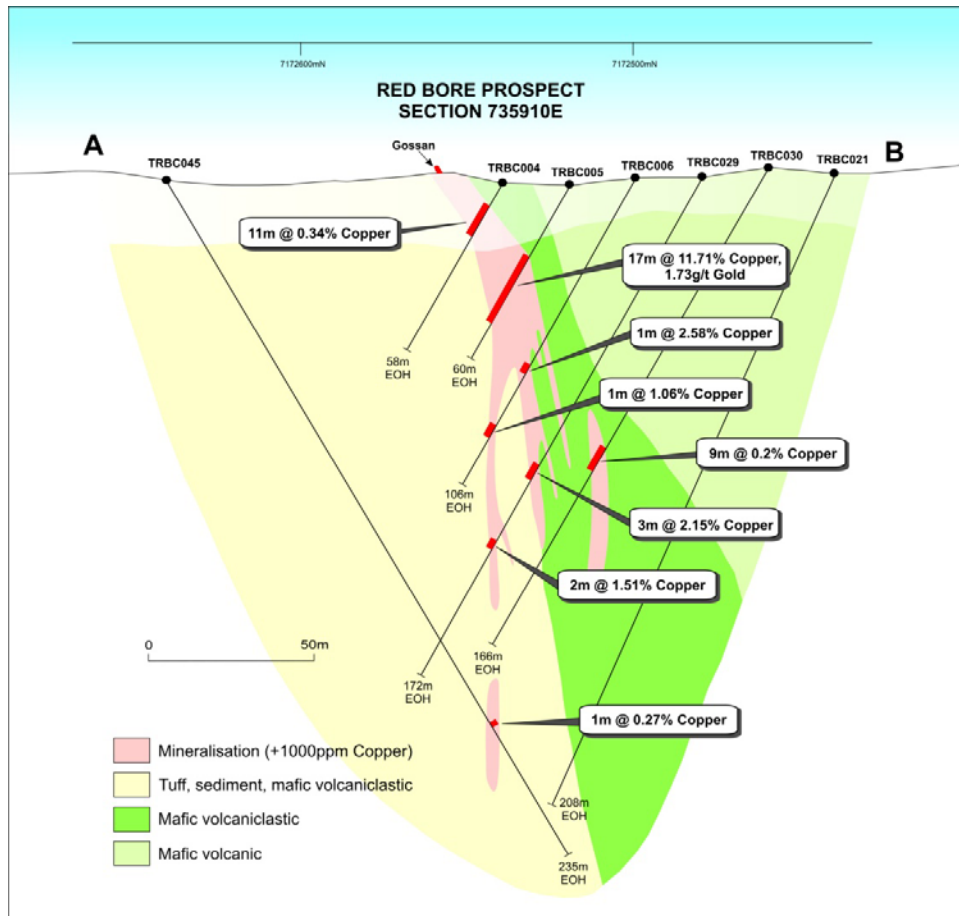
**Red Bore Prospect Drill Hole Location and Intercepts**



Drillhole TRBC032 has confirmed the previously identified mineralisation at Red Bore, with the bulk of the hole interpreted to lie above a west plunging shoot of mineralisation. Mineralisation within TRBC045 at a downhole depth of 190-191m indicates the Red Bore prospect sulphide mineralisation is vertically extensive and its exploration at depth presents as a high priority target.

Additional drilling of Down Hole Electro Magnetic (DHEM) platforms holes at Red Bore prospect is programmed to commence in early February. When this work is completed DHEM surveying will take place to identify off-hole conductive features.

## Red Bore Prospect Section 735910E



### Red Bore Prospect – Strike Extensions

Further mineralisation may be focussed along the east – west trending mafic volcanoclastic and tuff contact either side of the Red Bore prospect. In VMS occurrences around the world such favourable contacts or horizons may be host to multiple zones of mineralisation, and at Red Bore this horizon is regarded as having high potential for further discoveries.

Recently completed RC drill Holes TRBC036 and TRBC037, located to the east and west respectively of Red Bore prospect, returned W-Sn-Bi-Mo anomalism that may reflect VMS style alteration.

The drill results are being modelled together with magnetic, gravity and geochemical data to target further drilling along the 2 kilometre strike extent of the horizon present within the tenement.

### Red Bore North East

A number of new gossan occurrences have been identified during the start of geological mapping of the Red Bore tenement and these are considered indicative of, or prospective for, sulphide mineralisation at depth. One of these, the North-West Gossan prospect is coincident with gravity and magnetic features, and is located 250m south of Sandfire recently identified Conductor 5 resource (1.1Mt at 6.6% copper, 3.0 g/t gold). It presents as a high priority target for further detailed exploration.

### Red Bore Magnetic and Gravity Targets

In early October 2010 reverse circulation drilling investigated six gravity and magnetic targets within M52/597. None of these had been explored by past work.

Drilling has intersected geochemically anomalous copper mineralisation associated with minor sulphides.

Results indicate the presence of several mineralised systems within the Red Bore lease that warrant further evaluation. Further drilling is planned once results have been fully interpreted.

### Red Bore Induced Polarisation (IP) Targets

An induced polarisation (IP) geophysical survey, together with a detailed follow up infill survey has been carried out over the Red Bore project. The IP surveys were designed to identify disseminated and massive sulphide mineralisation. Results from this work have defined four anomalous areas.

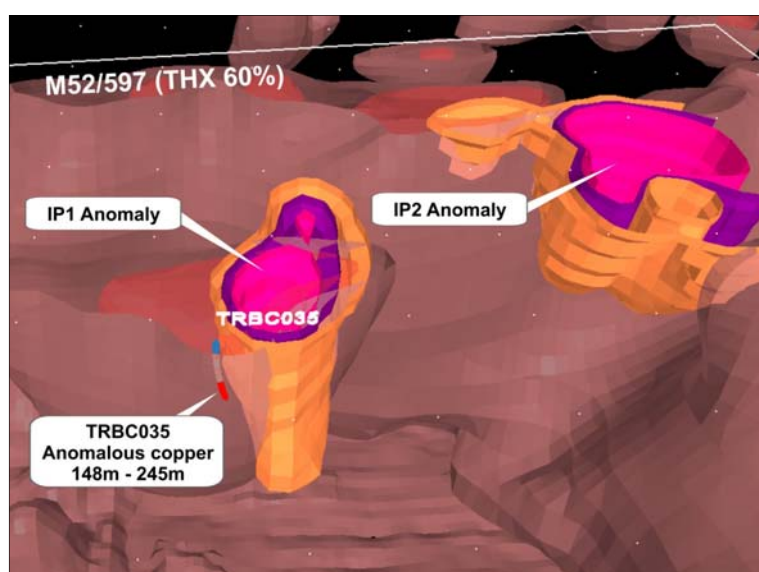
These include chargeable anomalism along the south eastern spine of the tenement where Thundelarra drilling has previously identified conductive black shales of the Karalundi Formation. Importantly, a second anomaly has been identified at the Red Bore prospect, where Thundelarra's drilling has confirmed the chargeable source as chalcopyrite dominated sulphide mineralisation.

The other two anomalies, named IP1 and IP2 are located north and north east of the Red Bore prospect and are discrete and intense chargeable anomalies considered to be prospective for copper-gold sulphide mineralisation.

The source of the anomalism is not apparent on surface as bedrock is obscured by recent cover, however gravity data indicates the IP anomalies lie within a corridor of Narracoota Volcanics and that the IP features flank gravity highs in a similar position to the Red Bore prospect mineralisation.

A 3D block image of the IP anomalies and drillhole TRBC035, together with the magnetic susceptibility model, are shown below.

**Red Bore IP Anomalies and drillhole TRBC035**





Previously drilled TRBC035, located adjacent to and west of anomaly IP1 was completed to investigate a magnetic feature, before the results of the IP survey were available. The hole intersected geochemically anomalous copper mineralisation.

In December a four hole, 894m reverse circulation drill programme over the IP1 and IP2 anomalies was completed. A prospective sequence of Narracoota Formation rocks, comprising mafic volcanoclastic, dolerite and tuff have been intersected in the drilling. This stratigraphy is the same as that at the nearby Red Bore Prospect mineralisation and at the DeGrussa deposit.

Assay results have been received for holes TRBC045 to TRBC 048 and geochemically anomalous results are tabulated below.

Hole	Azimuth/dip	Metres East	Metres North	From/ To	Interval	Copper
TRBC035	360°/-59.6°	735950	7172800	148-245m (EOH)	97m	258ppm
TRBC046	360°/-60°	736470	7172920	52-104m	52m	308ppm
TRBC047	360°/-60°	736570	7172910	92-116m	24m	382ppm
TRBC048	360°/-60°	736030	7172870	92-164m	72m	334ppm
TRBC049	360°/-60°	736010	7172820	Results Pending		

Note: Datum is MGA94 Zone 50

Geochemically anomalous zone calculated using a 200ppm copper lower cut, and maximum 1m internal dilution. Copper assay by special mixed acid digest (SMAD) and ICP-OES/MS.

No significant sulphides or other explanation to the source of the IP anomalies have been observed during geological logging. The intensity of the anomalism suggests the chargeable zone should be visually recognisable, and since this has not been noted it is believed the anomalies remain untested by drilling.

Evidence in drilling of faulting and multiple zones of alteration indicate that the IP anomaly areas are structurally complicated. Further drilling is planned to commence early February.

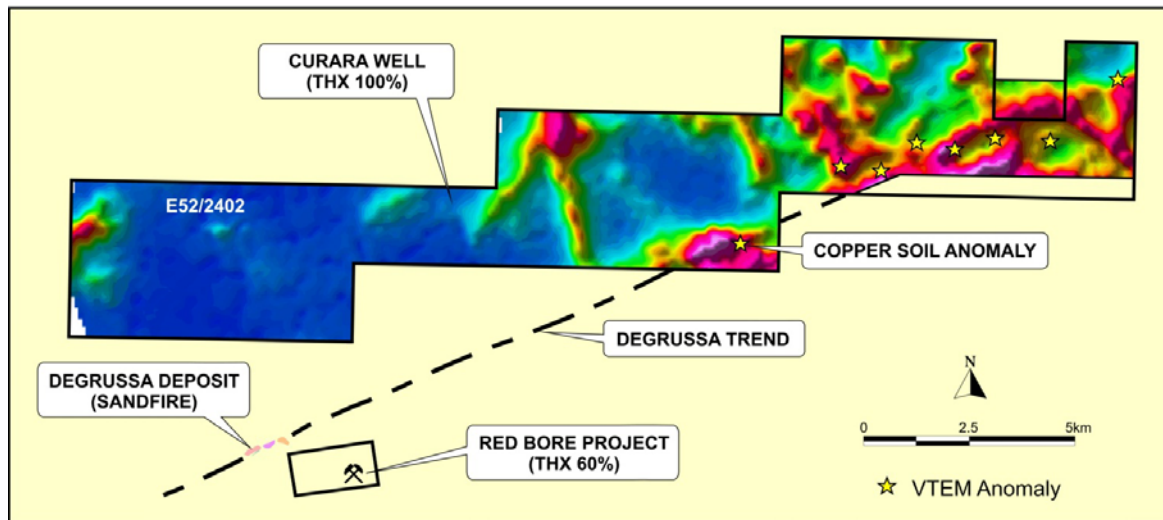
Once all drilling has been completed DHEM surveying will test for off-hole conductive mineralisation.

### Curara Well

The Curara Well tenement E52/2402, owned 100% by Thundelarra, is located 2.5 kilometres north and eastwards from the DeGrussa deposits. Thundelarra's tenement covers 83 square kilometres and encompasses over 10 kilometres in strike length of the regionally prospective Jenkins Fault, a major crustal feature which appears to be an important control to mineralisation in the area. Previous exploration by Thundelarra has identified a strong copper geochemical soil anomaly, as well as a prospective sequence of volcanic and epiclastic rocks.

During the quarter VTEM (versatile time domain electromagnetic) geophysical survey was completed over the entire Curara Well tenement. Results are displayed in the figure below.

## Curara Well Project VTEM Channel 25 B Field



The helicopter mounted VTEM system is designed to identify conductive features in bedrock, such as the sulphide hosted DeGrussa mineralisation, as well as marker horizons defined by stratigraphic rock units. The identification of the DeGrussa marker horizon is seen as important in the effective targeting for additional sulphide bodies. The VTEM survey method is well suited to identifying such targets at the Curara Well area where much of the prospective area is masked by recent cover.

Survey results show a zone of north east trending conductivity, along strike from and in the same orientation as the DeGrussa deposits. This is interpreted to reflect the position of the prospective DeGrussa stratigraphy where conductive sediments and copper-gold sulphide mineralisation may be present within the Curara Well tenement.

Eight high priority targets have been identified within the prospective stratigraphy. These are coincident with the defined copper geochemical anomaly, previously identified magnetic features as well as anomalies in new positions.

Heritage surveys and statutory approvals are being carried out to allow drill testing of the VTEM targets.

### Bluebush

The Bluebush tenement is located 40km west of Red Bore, and overlies a 200 square km area of Proterozoic rock sediments largely obscured by sand cover. Thundelarra's interpretation of magnetics imagery suggests that prospective Narracoota Volcanics extend into the tenement at shallow depth. This interpreted sequence of rocks hosts the Horseshoe Lights VMS occurrence to the west and presents as an attractive exploration target.

An airborne magnetics survey is being planned to identify features for drill testing.

### Yerrida

The Yerrida project comprises five tenements covering an area of 759 square kilometres, located 85 kilometres south of Red Bore. Thundelarra has rights to earn an 80% interest in the project.

The tenements secure shale units of the Mooloogool Group of the Yerrida Basin which are underlain at shallow depth by Killara Volcanics, which are geologically analogous to the Narracoota Volcanics of the Bryah Basin.

The project has potential for Sedex type base metal mineralisation, and past exploration has identified minor base metal mineralisation associated with faulting.

An airborne magnetics survey is planned to identify prospective structures for drill testing.

**Marymia**

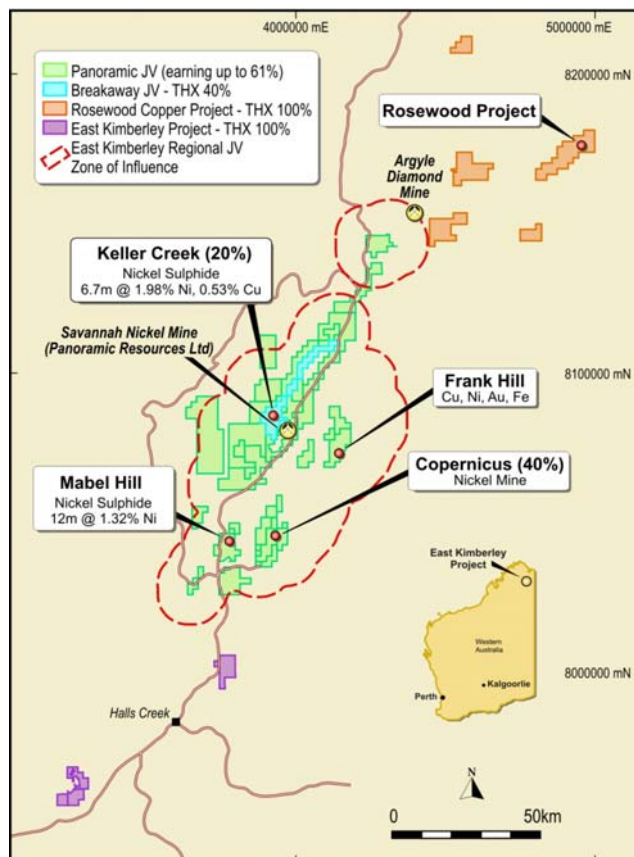
The Marymia project comprises two tenements totalling 228 square kilometres, located 35km to the north of Red Bore. The area has little outcrop but covers Proterozoic sediments and Archaean rocks of the Marymia Inlier. Little past exploration has been carried out but geochemical anomalies have been identified by government sampling. These subtle anomalies may reflect significant base metal mineralisation under cover, associated with major basin bounding structures that traverse the area.

Magnetics data indicates an iron and base metal prospective suite of rocks strike into the central project area. This area remains virtually unexplored by past work and geochemical sample is planned, to be followed by detailed airborne magnetics and drilling.

**East Kimberley Region**

Thundelarra holds interests in several projects in the East Kimberley with a copper and nickel-copper focus. Projects are displayed below.

**East Kimberley Projects Map**



### **East Kimberley Panoramic Resources Regional JV**

Panoramic Resources are earning a 61% interest in a number of Thundelarra's regional tenements in the East Kimberley by funding \$3 million of exploration expenditure.

Exploration is targeting nickel-copper-cobalt sulphide mineralisation associated with mafic and ultramafic intrusions. The region hosts two such deposits, the operating Savannah mine (PAN) and the Copernicus deposit (THX 40%).

A program of airborne electromagnetic (VTEM) "max" System surveys that had commenced in the September 2010 quarter was completed. In all, sixteen individual VTEM survey areas containing residual gravity anomalies were flown for a total of 5,314 line kilometres.

Field checking of anomalies identified from the preliminary VTEM survey data has commenced. All of the ground and airborne gravity, magnetic and VTEM survey data completed over the last 15 months are being assessed to identify and prioritise drill targets for testing during 2011/12.

During the quarter Thundelarra secured a 100% equity to previously joint ventured tenure at Lamboo and Sophie Downs, and an 80% interest in E80/2559 (with Hawthorne Resources Ltd holding a 20% free carried interest). Two tenements at Lamboo, E80/2601 and E80/3861 have subsequently been sold to Bulletin Resources Ltd.

### **Rosewood**

The Rosewood project covers a large area of the Headley Limestone within the Rosewood Syncline, a Cambrian aged carbonate sequence overlying the Antrim Plateau Volcanics. The upper portion of the volcanics and the Headley Limestone display widespread copper mineralisation associated with folding and faulting, as well as within more permeable lithologies at the base of the Headley limestone. The general setting is analogous to the Michigan copper belt in the USA which produced over 10 billion pounds of copper metal between 1845 and 1996.

Work by Thundelarra has identified numerous copper occurrences, with rock sampling up to 13.1% copper and 35.5 g/t silver.

A 590 line kilometres VTEM survey has been completed over the northern portion of E80/3800 where the bulk of copper anomalism has been identified to date. Preliminary survey results indicate several anomalous features for testing in 2011.

## ABOUT THUNDELARRA

Thundelarra is a successful mineral explorer primarily focused on uranium in the Northern Territory and base metals in Western Australia.

The Company controls major landholdings in the Pine Creek and Ngalia Basin uranium provinces totalling almost 8,000 square kilometres and has made a number of significant uranium discoveries in both areas. Of particular note is the Thunderball Prospect where diamond drilling has intersected mineralisation assaying up to 20% U<sub>3</sub>O<sub>8</sub>. Thundelarra is expected to release a maiden JORC compliant resource for Thunderball early 2011.

In Western Australia Thundelarra controls 10 tenements in the Doolgunna region totalling 1,500 square kilometres, including ground immediately along strike from Sandfire Resources' DeGrussa deposit. Recent drilling by Thundelarra has intersected significant high grade copper-gold mineralisation. The Company also retains substantial base metals exploration tenure in the East Kimberly and a 40% interest in the Copernicus nickel sulphide mine.

Thundelarra is extremely well funded and is aggressively exploring its key projects with the aim of progressing its discoveries through to commercial production.

### REGISTERED OFFICE

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#### Component Person's Statement

The details contained in this report that pertain to ore and mineralisation are based upon information compiled by Mr Brian Richardson, a full-time employee of the Company. Mr Richardson is a Member of the Australasian Institute of Mining and Metallurgy (AUSIMM) and 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 December 2004 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). Mr Richardson consents to the inclusion in this report of the matters based upon 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, 01/06/10.

Name of entity

**THUNDELARRA EXPLORATION LTD**

ABN

**74 950 465 654**

Quarter ended ("current quarter")

**31 DECEMBER 2010**

### Consolidated statement of cash flows

Cash flows related to operating activities	Current quarter \$A'ooo	Year to date (3 months) \$A'ooo
1.1 Receipts from product sales and related debtors	-	-
1.2 Payments for (a) exploration & evaluation	(2,176)	(2,176)
(b) development	-	-
(c) production	-	-
(d) administration	(936)	(936)
1.3 Dividends received	-	-
1.4 Interest and other items of a similar nature received	231	231
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Other	-	-
<b>Net Operating Cash Flows</b>	<b>(2,881)</b>	<b>(2,881)</b>
<b>Cash flows related to investing activities</b>		
1.8 Payment for purchases of:		
(a) prospects	-	-
(b) equity investments	-	-
(c) other fixed assets	(32)	(32)
1.9 Proceeds from sale of:		
(a) prospects	20	20
(b) equity investments	-	-
(c) other fixed assets	-	-
1.10 Loans to other entities	-	-
1.11 Loans repaid by other entities	-	-
1.12 Other – Redemption of security deposits	-	-
- Placement of security deposits	(76)	(76)
- Payment for intangibles	(3)	(3)
<b>Net investing cash flows</b>	<b>(91)</b>	<b>(91)</b>
1.13 Total operating and investing cash flows (carried forward)	<b>(2,972)</b>	<b>(2,972)</b>

+ 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)	(2,972)
	<b>Cash flows related to financing activities</b>		
1.14	Proceeds from issues of shares, options, etc.	733	733
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 issue costs)	-	-
	<b>Net financing cash flows</b>	<b>733</b>	<b>733</b>
	<b>Net increase (decrease) in cash held</b>	<b>(2,239)</b>	<b>(2,239)</b>
1.20	Cash at beginning of quarter/year to date	19,201	19,201
1.21	Exchange rate adjustments to item 1.20	-	-
1.22	<b>Cash at end of quarter</b>	<b>16,962</b>	<b>16,962</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	273
1.24	Aggregate amount of loans to the parties included in item 1.10	-

1.25 Explanation necessary for an understanding of the transactions

Thundelarra's financial year is from the period 1 October 2010 to 30 September 2011.

**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

Not Applicable

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

Not Applicable

**Financing facilities available**

*Add notes as necessary for an understanding of the position.*

+ See chapter 19 for defined terms.

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

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

**Estimated cash outflows for next quarter**

	\$A'000
4.1 Exploration and evaluation	1,000
4.2 Development	-
4.3 Production	-
4.4 Administration	800
<b>Total</b>	<b>1,800</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	238	816
5.2 Deposits at call	16,724	18,385
5.3 Bank overdraft	-	-
5.4 Other (provide details)	-	-
<b>Total: cash at end of quarter (item 1.22)</b>	<b>16,962</b>	<b>19,201</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	E80/2607	-	100%	Nil
	E45/2611	-	100%	Nil
	E80/3525	-	100%	Nil
	E80/3705	-	100%	Nil
	E80/3876	-	100%	Nil
	E80/3873	-	100%	Nil
	E80/4191	-	100%	Nil
	E80/4196	-	100%	Nil
	E80/4249	-	100%	Nil

+ See chapter 19 for defined terms.



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

6.2 Interests in mining tenements acquired or increased	E80/4304	-	Nil	100%
	EL27898	-	Nil	100%
	E80/4398	-	Nil	100%

**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>	153,412,782	153,412,782	-	-
7.4 Changes during quarter				
(a) Increases through issues	1,250,000	1,250,000	\$0.45	-
	3,729	1,693,612	\$0.20	-
	530,000	530,000	\$0.32	-
	680,272	680,272	\$0.735	-
(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	-	-	-	-

+ See chapter 19 for defined terms.

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

7.7	<b>Options</b> (description and conversion factor)	6,780,131 1,000,000 110,000 350,000 4,250,000 200,000 260,000 4,250,000 280,000 6,750,000 2,090,000	6,780,131 - - - - - - - - - -	<i>Exercise price</i> \$0.20 \$0.68 \$0.52 \$0.47 \$0.50 \$0.39 \$0.52 \$0.20 \$0.32 \$0.64 \$0.96	<i>Expiry date</i> 29/03/2013 31/05/2011 30/06/2011 31/12/2011 28/02/2013 03/04/2011 30/06/2012 26/02/2014 30/09/2012 25/02/2015 20/09/2013
7.8	Issued during quarter	-	-	-	-
7.9	Exercised during quarter	1,250,000 3,729 530,000		\$0.45 \$0.20 \$0.32	30/11/2010 29/03/2013 30/09/2012
7.10	Expired during quarter	-	-	-	-
7.11	<b>Debentures</b> (totals only)	-	-		
7.12	<b>Unsecured notes</b> (totals only)	-	-		

## 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:

(Director/Company secretary)

Date: 31 January 2011

Print name:

FRANK DE MARTE

## 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.

+ See chapter 19 for defined terms.

## Appendix 5B Mining exploration entity quarterly report

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- 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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