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**Scimitar Resources Ltd.  
Eclipse Uranium Project  
EL 24625, EL 24636 and EL 24637.**

**Annual Report to the Northern Territory, Department of  
Primary Industry, Fisheries and Mines for the Year Ending  
18<sup>th</sup> December 2006.**

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## **Summary.**

This report details the exploration activities carried out over Scimitar Resources Ltd. (Scimitar) Eclipse Project in the Northern Territory, during the period 8<sup>th</sup> December 2005 to 18<sup>th</sup> December 2006. This work included research, data base compilation, field reconnaissance and Aircore drilling within EL 24625, 24636 and 24637.

The Aircore drilling program conducted during early December 2006 comprised sixty-four holes for 1,365 metres, targeting near surface calcrete hosted uranium mineralisation, similar to the adjacent New Well uranium deposit, held by Deep Yellow Ltd.

The drilling targeted two large regional drainage systems, which are actively depositing uranium within the channels and around the margins of Lake Lewis.

The initial phase of the drilling program returned generally low uranium values from three metre composite sampling. The remaining 2500 metres of the drilling program will be completed in early 2007.

## 1.0 Introduction.

Scimitar's Eclipse Uranium Project covers parts of the Ngalia Basin and Arunta Block granites, which are prospective for uranium mineralisation. The licences cover a number of active stream systems that drain uranium enriched granites to the north. Interpretation of airborne radiometric imagery indicates that these drainages are depositing uranium within their channels and around the margins of Lake Lewis. The New Well uranium deposit is located on one of these drainages in ground adjacent to and down stream of Scimitars licences.

This report details the exploration activities carried out over the Eclipse Uranium Project area during the period 8<sup>th</sup> December 2005 to 18<sup>th</sup> December 2006. This work included research, data base compilation, field reconnaissance and Aircore drilling.

## 2.0 Location, Access and Tenure.

The Eclipse Uranium Project is located 200 km northwest of Alice Springs and lies astride the Tanami Hwy on the Napperby and Narwietooma Pastoral Leases. (fig. 1)

The three exploration licences cover 3,741 km<sup>2</sup> and form a contiguous block which is found on the Napperby SH 53-09 and Hermannsburg SF 53-13 1:250,000 map sheets, centred on 240000 E / 7470000 N (GDA94).

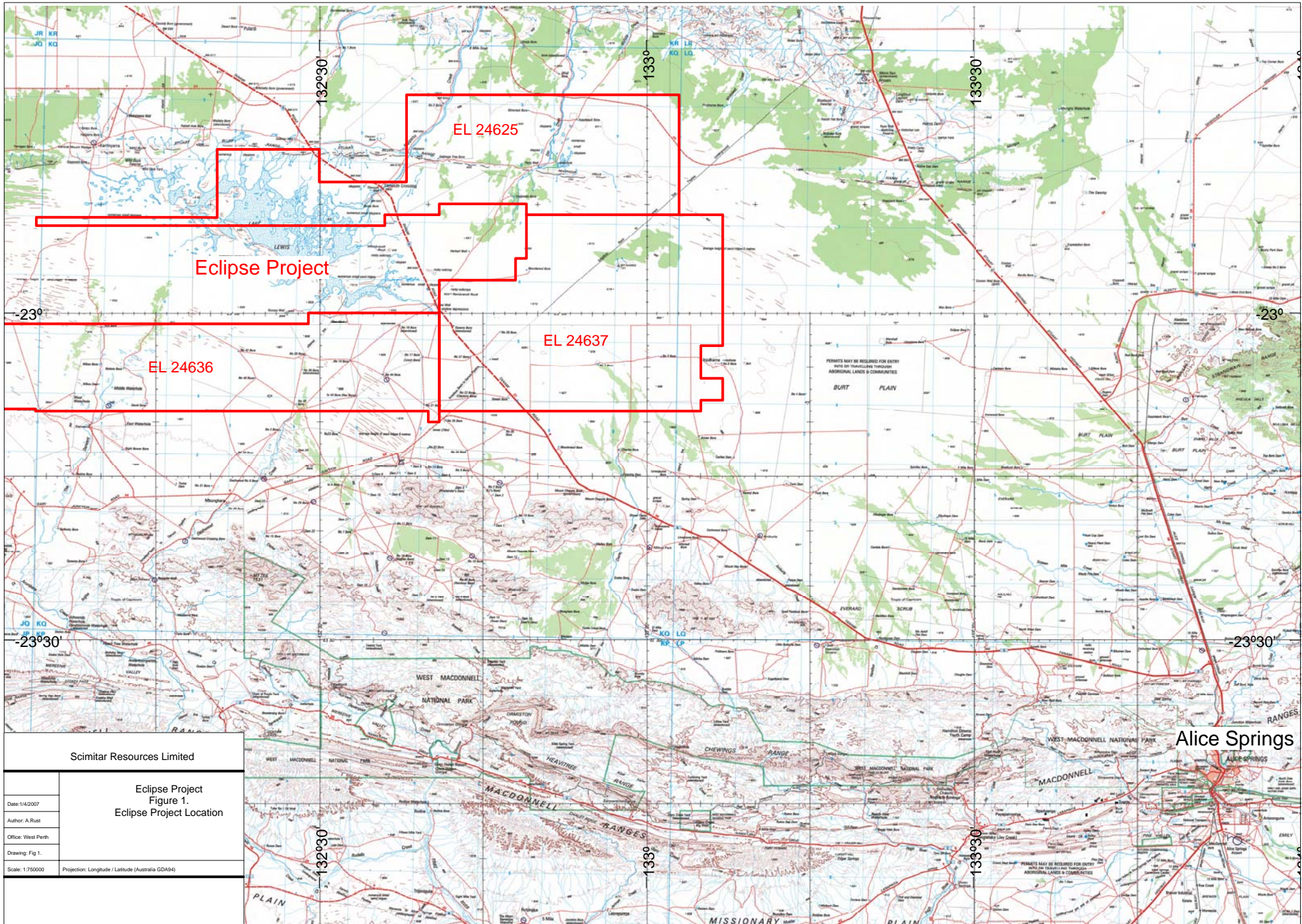
**Table 1. Eclipse Project Tenement Details.**

Licence	Holder	Date Granted	Expiry Date	Area km <sup>2</sup>	Minimum Expenditure
EL 24625	Scimitar Resources Ltd 100%	19/12/2005	18/12/2011	1188	\$139,000
EL 24636	Scimitar Resources Ltd 100%	08/12/2005	07/12/2011	1238	\$121,000
EL 24637	Scimitar Resources Ltd 100%	08/12/2005	07/12/2011	1315	\$121,000

## 3.0 Regional Geology.

The Eclipse project covers the southern part of the Ngalia Basin and parts of the surrounding Arunta Block. The Ngalia Basin is a large 300 km long by 70 km wide east west trending intra-cratonic basin, which contains up to 5000 metres of late Proterozoic to Carboniferous aged fluvial and marine sediments. These sediments were derived from the surrounding uranium enriched early to mid Proterozoic granites and metamorphic rocks of the Arunta Block. (Fig. 2)

The Ngalia Basin developed around 900mya and comprises a succession of basal late Proterozoic continental and possibly marine sediments overlain by continental fluvio-glacial sediments. Later sedimentation during the Cambrian and Ordovician resulted in epicontinental sediments including carbonates. Uplift during the Alice Springs Orogeny resulted in the deposition of Devonian to Carboniferous fluvial sediments. Subsequent deformation of the basin has resulted in folding and faulting, with major thrust faults, strong folding and over turning of lithology along the northern margin of the basin. Deformation in the south is less intense with only gentle folding along the southern margin. (Freeman etal 1990)



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Eclipse Project  
Figure 1.  
Eclipse Project Location

Date: 14/2/2007

Author: A.Rust

Office: West Perth

Drawing: Fig 1.

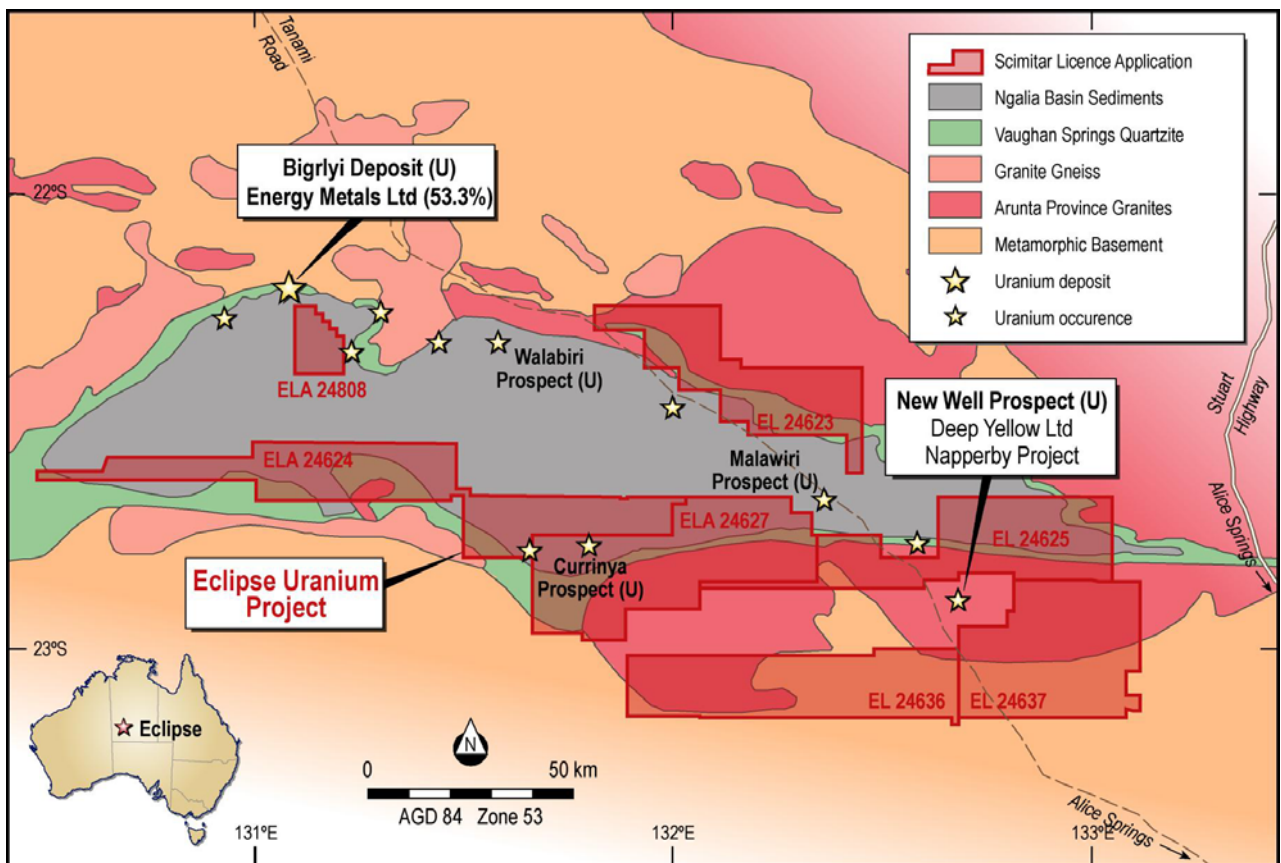
Scale: 1:750000

Projection: Longitude / Latitude (Australia GDA94)

The Arunta Block is composed of metamorphic basement lithology's, which have been intruded by later granites. Three areas are recognised within the Arunta Block, The northern, central and southern provinces. The Ngalia basin sits between the northern and central provinces. Formation of the Arunta Craton is divided into three stages. The earliest phase (2000mya) comprises mafic, felsic and aluminous granulite and calc-silicate rocks of the Strangways Metamorphic Complex, which comprises most of the Central Province. The second phase of formation is dominant in the northern and southern provinces and comprises aluminous and silicious sediments with a few mafic flows and sills. The third phase is less extensive and is found as ortho-quartzite outliers scattered around the northern and southern provinces. (Shaw 1990)

The Arunta Block underwent deformation and metamorphism during the Proterozoic, including the intrusion of granites, some of which are highly uriferous, particularly those from around 1750mya. During the late Devonian and early Carboniferous the Arunta Block was extensively disrupted by thrust faulting, particularly along the boundary between the northern and central provinces. (Shaw 1990)

**Figure 2. Eclipse Project Geology and Tenements.**

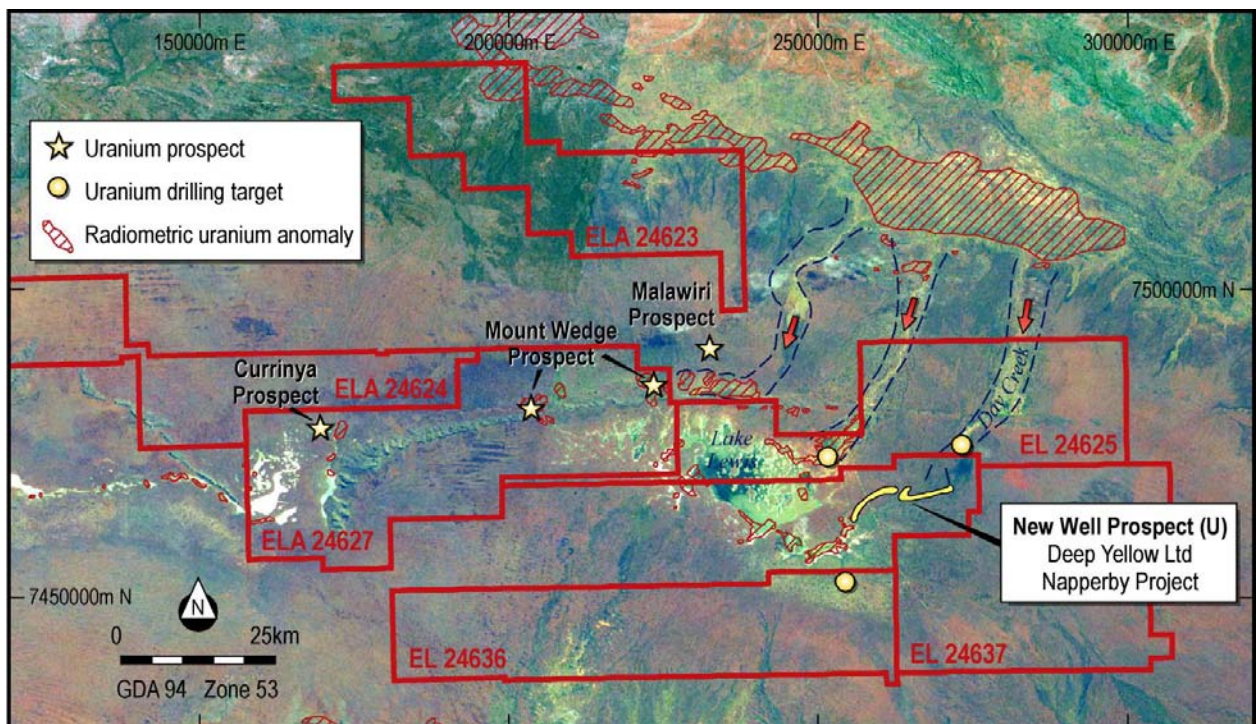


#### 4.0 Project Geology.

The project area is typified by flat sandy plains overlying granites of the Arunta Block in the south. The project area abuts and extends into the Ngalia basin to the north. The basin margin within the project area is marked by a pronounced quartzite ridge, the Stuart Bluff Range and the Reaphook Hills, which trend east west along the basin margin and dip gently to the north. Sandy and calcrete soils are found extensively within the basin and overlying the Arunta Block. A number of isolated granite hills emerge from the plain within the project area, especially in the east where granite hills, including Mount Harris, appear to flank a buried salt lake. The vegetation in the area consists of acacia scrubland associated with grasslands and minimally modified pastures in places. Taller eucalypts are present within and along the main drainage systems.

The project area includes the northern part of the Lake Lewis salt lake. This lake is fed by two large ephemeral creek systems, the Napperby and Day Creeks, which drain uranium enriched granites along the northern boundary of the Ngalia Basin. A number of smaller less continuous drainages feed the lake along its western margin. (Fig 3.)

**Figure 3. Eclipse Project Landsat TM and Radiometric Anomalies.**



#### 5.0 Previous Exploration.

Little on ground exploration has been carried out within Scimitar's three granted Licences. Historical work conducted during the 1970's and 1980's involved broadly spaced drilling targeting sandstone and calcrete hosted uranium mineralisation within the Ngalia basin and overlying the granites of the Arunta Block.

In 1973, CRA Exploration Ltd. (CRAE) undertook exploration over the north eastern part of EL24625, around Mount Harris. A program of mapping and sampling over the outcropping granites indicated that they were uraniferous and hence potential source rocks for secondary uranium mineralisation. Sampling returned values up to 40ppm uranium from the granites. Mapping of the surrounding plains failed to locate any suitable sediments or calcrete likely to host secondary uranium mineralisation. (Hughes 1973)

During 1978 and 1979 Uranerz Australia P/L (Uranerz) completed 25 RAB holes (NE07-NE31) as part of a 31 hole program for 330 metres, targeting calcrete uranium mineralisation within EL 24625. The hole depths were between 6.5-17.5m. The drilling on 1km by 3km spacings at the Patty Well prospect, intersected clean moderately oxidised fluvial sands, clayey sand, and sandy clays, with narrow <1m calcrete bands. No significant results were recorded. (Morete 1979)

The company also conducted an airborne radiometric survey comprising 241 line kilometres on 800m line spacing. No significant anomalies were located. A limited program of water sampling at Patty Well and Supple Jack Bore returned values of 11ppb  $U_3O_8$  from both wells. (Morete 1979)

During 1981 Alcoa Australia Ltd. (Alcoa) held a large exploration licence covering the southern parts of EL 24636 and 24637. The company was targeting sandstone and calcrete hosted uranium within calcrete and tertiary sands of the Narwietooma Basin, which overlies the granites of the Arunta Block. Eleven mud rotary holes (NA001-NA011) were completed for 1,555m within and to the south of EL 24636 and 24637.

The drilling intersected thick sequences of oxidised tertiary sediments, clays, sandy clays and minor unconsolidated sand units. This suggested that oxidising fluids had moved through all the permeable beds in the area, diminishing the prospect of locating uranium mineralisation. All holes were gamma probed and a number of sections were assayed for uranium. The highest result was 2m @ 7ppm uranium from hole NA011. (Howard 1981)

Between 1977 and 1982 AGIP Australia P/L (AGIP) conducted a number of first pass drilling programs targeting sandstone hosted roll front uranium mineralisation within the Eclipse Sandstone. A total of nine holes (CT1R, CT2R, YR123, YR124, YR130, Y215R, Y216R, Y217R & Y148R) were drilled for 1,019 metres in the north western part of EL 24625. A number of narrow sub-economic uranium results were recorded, including 0.6m @ 192ppm  $U_3O_8$  from 120.1m in Y216R and 0.8m @ 150ppm  $U_3O_8$  from 119.2m in YR123. (Anon 1983)

The most detailed and successful exploration within the immediate project area was carried out by Uranerz at the New Well uranium prospect, adjacent to Scimitars licences. Shallow auger drilling conducted during the 1970's identified a mineralised near surface palaeodrainage system over 20 km long and up to 4km wide that drains into Lake Lewis along the Day creek. An economic scoping study on the New Well prospect, indicated that it could contain up to 6000 tonnes of  $U_3O_8$ , based on a grade range of 360-380ppm  $U_3O_8$ . This prospect is in the drainage adjacent to Scimitars licences and is currently the focus of drilling and costeaning by Deep Yellow Ltd., the current owners of the project.



## 6.0 Work Completed.

During the reporting period Scimitar has undertaken a review of the available open file reports and data, acquired airborne radiometric imagery, undertaken data entry and the creation of a project data base, completed a Mining Management Plan for the project, undertaken reconnaissance field trips and completed the first phase of a 4000 metres Aircore drilling program.

Investigation of open file reports and the available geophysical data and imagery has identified a number of target areas that are prospective for calcrete hosted uranium mineralisation, similar to that at the adjacent New Well uranium deposit. Of particular interest are the Napperby Creek drainage and the northern margins of Lake Lewis. Airborne radiometric data indicates that uranium enriched material is present in these drainages and is depositing around the margins of Lake Lewis and at trap sites along the drainage system.

The Aircore drilling program conducted during early December 2006 comprised sixty-four holes for 1,365 metres, targeting near surface calcrete hosted uranium mineralisation, similar to the adjacent New Well uranium deposit, held by Deep Yellow Ltd. (Fig. 5)

The drilling targeted two large regional drainage systems, which are actively depositing uranium within the channels and around the margins of Lake Lewis. These drainage systems, The Day and Napperby Creeks, drain uranium enriched granites from the northern margin of the Ngalia Basin. (Fig. 4)

Interpretation of Landsat TM imagery indicates that these two drainages debouche into Lake Lewis and also into areas formerly covered by salt lakes to the east, below Mount Harris. This interpretation indicates that the present Lake Lewis has migrated over time and was probably rather more extensive than its present location suggests. This interpretation provides further potential mineralisation sites for Scimitar in areas overlooked by previous workers. (Fig. 3)

The drilling program was completed by Pine Creek based Johannsen Drilling P/L, utilising a Gemco H13 rig mounted on an Isuzu 4 x 4 truck with its own onboard compressor.

All holes were drilled using a 4 inch open face coring bit. The holes were collared using 1-2 metres of PVC pipe, which was removed at the completion of each hole. All holes were immediately capped below ground using plastic cone plugs, in accordance with Northern Territory Guidelines. Spoil from the drill collar and outside return was returned to the drill hole before capping. Drill hole collar co-ordinates were recorded using a Garmin 12XL GPS which has a horizontal accuracy of  $\pm 5$  metres. (App. 1)

Drill cuttings were collected, via the rig mounted cyclone, into green plastic mining bags. Sample was collected over one metre intervals and laid out sequentially at the drill site. A total of 454 three metre composite samples (ECC 001-454) were collected using an aluminium sampling scoop to give a sample of approximately 3 kg. The three metre composite samples were collected into individual 10 x 14 inch calico bags. The calico bags were then collected into green plastic mining bags, with five samples per bag. The plastic bags were sealed with cable ties and then placed into Black plastic No. 10 Nally crates (52 litres) with sealable lids for transport to Amdel Laboratories in Adelaide. Each crate held between 10 to 15 individual samples and was consigned in 36 crates on three pallets. The pallets were wrapped in shrink wrap

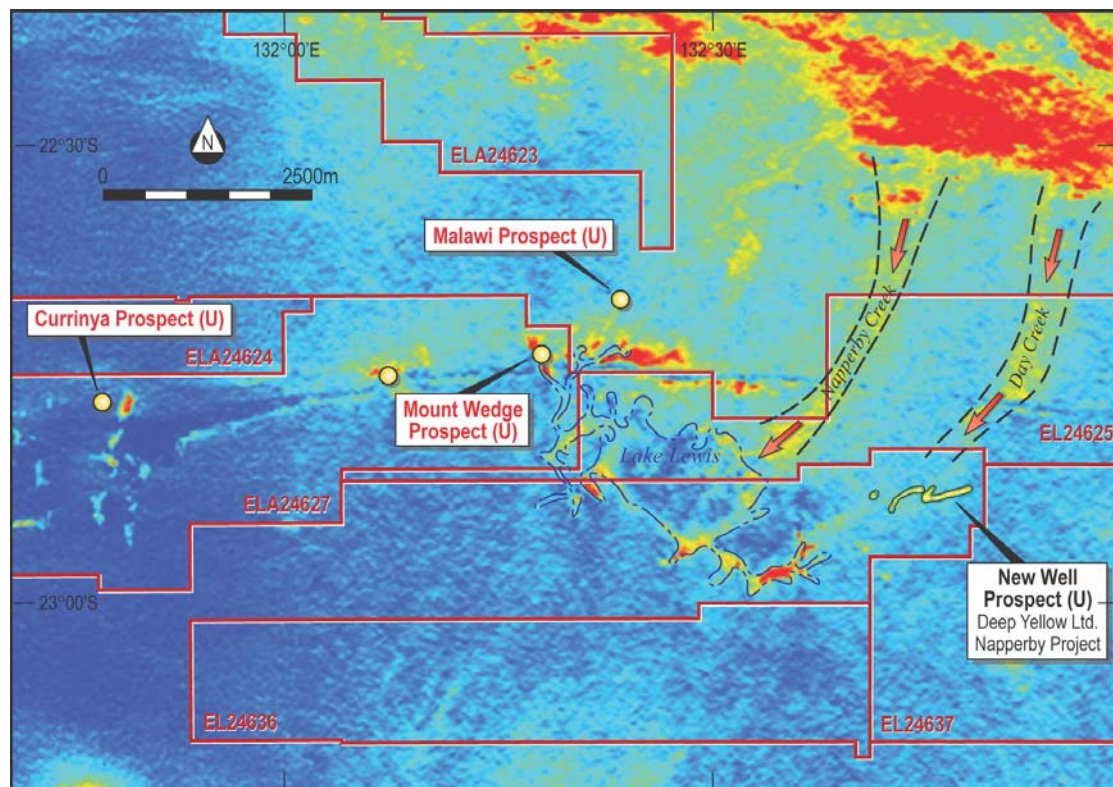
to avoid damage during transport. The pallets were monitored for radioactive dose rate prior to shipment and were all found to be under 0.3 uSV/hr.

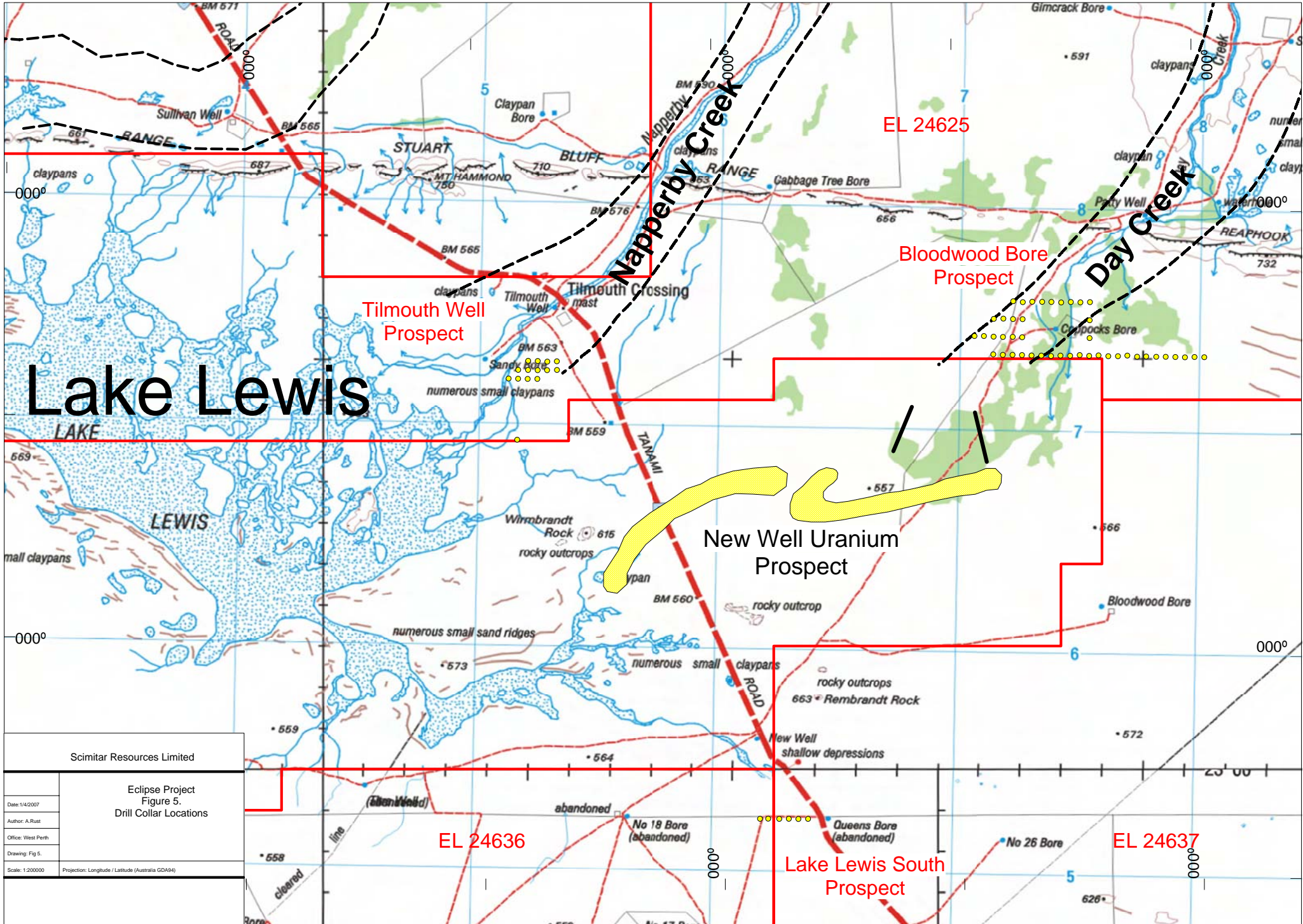
The samples were analysed at Amdel Laboratory in Adelaide, where they were dried and crushed to minus 75 µm using an LM5 pulveriser (PREP 2K) before being analysed for uranium, thorium and bismuth by X-ray Fluorescence of pressed powder (method XRF1). (App. 3)

The drilling intersected a general profile consisting of between 1 to 4 metres of recent aeolian sands and soil over fluvial sandy clays, sands, gravels and muds. Calcrete was intersected in all holes and ranged from thick, hard porcellaneous calcrete to thin laminae through out the sediments. A number of holes were unable to reach planned depth due to the hardness of the calcrete. The average hole depth was approximately 21 metres, although a few holes were drilled deeper to intersect basement. The deepest hole, ECAC 014, of 48 metres failed to intersect basement and was still in transported clays and mud at the end of hole. These sediments appear to be similar to salt lake sediments, which indicates that there is a need for further investigation of the regional basement topography, either by deeper drilling or utilising geophysics. (App. 2)

Results from the first phase of drilling returned generally low uranium values, with the best result being 28 ppm U from 24-28m in drill hole ECAC 034. (App. 3)

**Figure 4. Eclipse Project Airborne Uranium Radiometrics.**





# Lake Lewis

Scimitar Resources Limited	
Eclipse Project Figure 5. Drill Collar Locations	
Date: 14/2/2007	
Author: A.Rust	
Office: West Perth	
Drawing: Fig 5.	
Scale: 1:200000	Projection: Longitude / Latitude (Australia GDA94)

## **7.0 Conclusions and Recommendations.**

The Eclipse Uranium Project covers parts of the Ngalia Basin and Arunta Block granites, which are prospective for uranium mineralisation. The licences cover a number of active stream systems that drain uranium enriched granites to the north. Interpretation of airborne radiometric imagery indicates that these drainages are depositing uranium within their channels and around the margins of Lake Lewis.

Recently conducted exploration by Scimitar and the results of earlier workers indicates that further uranium resources may exist within the area. The drilling results while not of economic grade indicate that there is uranium in the system and that the target methodology is generally sound. Further drilling to be completed during early 2007 will target uranium mineralisation closer to the margins of Lake Lewis and extend to the north along the Day Creek drainage.

The drilling intersected potential host lithology's associated with calcrete formation. The failure to intersect granitic basement, indicates that further work will be needed to understand the basement topography within the project area. This will be accomplished by a combination of deeper drilling and the use of airborne geophysics, including electromagnetic surveys and ground based gravity surveys. These surveys will assist in identifying buried channels and potential trap sites for uranium mineralisation. This will also mean that drilling can be targeted better and reduce the amount of ground that is disturbed during exploration.

Based on the results of the geophysics further drilling programs will be conducted, potentially in the area to the east of the Bloodwood Bore prospect where a buried salt lake is interpreted to exist under recent aeolian sand cover.

## References.

**Anon., 1983.** Final Report to the Department of Mines, EL 1199. Annual Report to the Dept. Minerals and Energy, NT. AGIP Australia. Pty/Ltd. **(CR 1983\_0087)**

**Freeman, M.J., Shergold, J.H., Morris, D.G. & Walter, M.R., 1990.** Late Proterozoic and Palaeozoic basins of Central and Northern Australia – Regional Geology and Mineralisation, in *Geology of the Mineral Deposits of Australia and New Guinea* (Ed. F.E Hughes), pp. 1125-1133. The Australasian Institute of Mining and Metallurgy. Melbourne

**Howard, R.W., 1981.** Final Report on Exploration in EL2822, Narwietooma Basin, NT, Project Report 33. Annual Report to the Dept. Minerals and Energy, NT. Alcoa of Australia. Ltd, Exploration Division. **(CR 1982\_0011)**

**Hughes, F.E., 1972.** Final Report on EL 753, Mount Harris, NT. Annual Report to the Dept. Minerals and Energy, CRA Exploration Ltd. **(CR 1973\_0121)**

**Morete, S., 1979.** Final Report on Exploration over Exploration Licence 1614, Napperby Area, Northern Territory. Annual Report to the Dept. Minerals and Energy, NT. Uranerz Australia. Pty/Ltd, **(CR 1979\_0149)**

**Shaw, R.D., 1990.** Arunta Block \_ Regional Geology and Mineralisation, in *Geology of the Mineral Deposits of Australia and New Guinea* (Ed. F.E Hughes), pp. 869-874. The Australasian Institute of Mining and Metallurgy. Melbourne