TENTH ANNUAL REPORT OVER THE ECLIPSE URANIUM PROJECT

Reporting period: 10/08/2015 to 09/08/2016

NGALIA MINERAL FIELD,

NORTHERN TERRITORY

Eclipse Uranium Project

Exploration Licence: 24808

BY

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DISTRIBUTION

1. *Northern Territory Department of Minerals & Energy*
2. *Eclipse Metals Limited*

PROJECT NAME:	ECLIPSE		
TENEMENTS:	Exploration Licences 24808		
MINERAL FIELD:	Ngalia Basin		
LOCATION:	MT DOREEN	SF5212	1:250 000
	Doreen	5153	1:100 000
COMMODITIES:	Uranium		
PERIOD:	10/08/2015 to 09/08/2016		

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1.1 ECLIPSE PROJECT

1.2 Copyright Statement:

The owned information acquired by Eclipse Uranium Ltd includes all information under the previous work by Eclipse Uranium Ltd and work during reporting year sections. The rest of the information has been sourced from open reports and data through the Department of Mines and Energy. The Minister has authority to publish the copyrighted information accordingly.

2.0 INTRODUCTION

The Eclipse tenement (EL24808) covers 27 graticular sub-blocks within the arenaceous continental and marine sediments of Pre-Cainozoic age of the Ngalia Basin. The project is prospective for uranium as JORC Resources have been delineated within the surrounding areas. The tenement is situated on the northern portion of the Ngalia Basin.

Since 2014, consulting geologists Kastellco Geological Consultancy ("**KGC**") conducted a review of existing historical exploration data within the Northern Territory Geological Survey Database. This was conducted for over the Project area to identify any potential for uranium, gold and base metal.

Work during this term included literature searches and data base compilation. Open file company reports were obtained from the Northern Territory Geological Survey and a review of past exploration data and geological concepts undertaken.

Further evaluation in the 2015 – 2016 tenement year has revised conclusions from previous work and resulted in geophysical recommendation that a detailed ground gravity survey be conducted over airborne magnetic and Tempest anomalies to delineate drill targets.

No ground exploration has been conducted due to past financial constraints, which have been addressed and approval obtained to conduct field activities in the 2016 / 2017 year.

3.0 LOCATION AND ACCESS

The Eclipse project is located approximately 300 km NW of Alice Springs in the Northern Territory. The project comprises Exploration Licence 24808 with an area of 27 graticular sub-blocks within an extensive field of mineralized occurrences includes roll-front uranium mineralisation at Bigryli within Devonian aged sandstones of the Ngalia Basin.

4.0 TENEMENTS

The project is comprised of one granted exploration licence summarised in Table 1 with location shown in Figures 1 and 2.

Table 1: Eclipse Project - Tenement Summary

Project	Tenement Number	Status	Current Area		Current Holder	Granted Date	Expenditure Covenant ($)
			Blocks	(sq km)			
Eclipse	EL24808	Granted	27	85.79 km^2	Cauldron Energy Limited	10/08/2006	$64,000

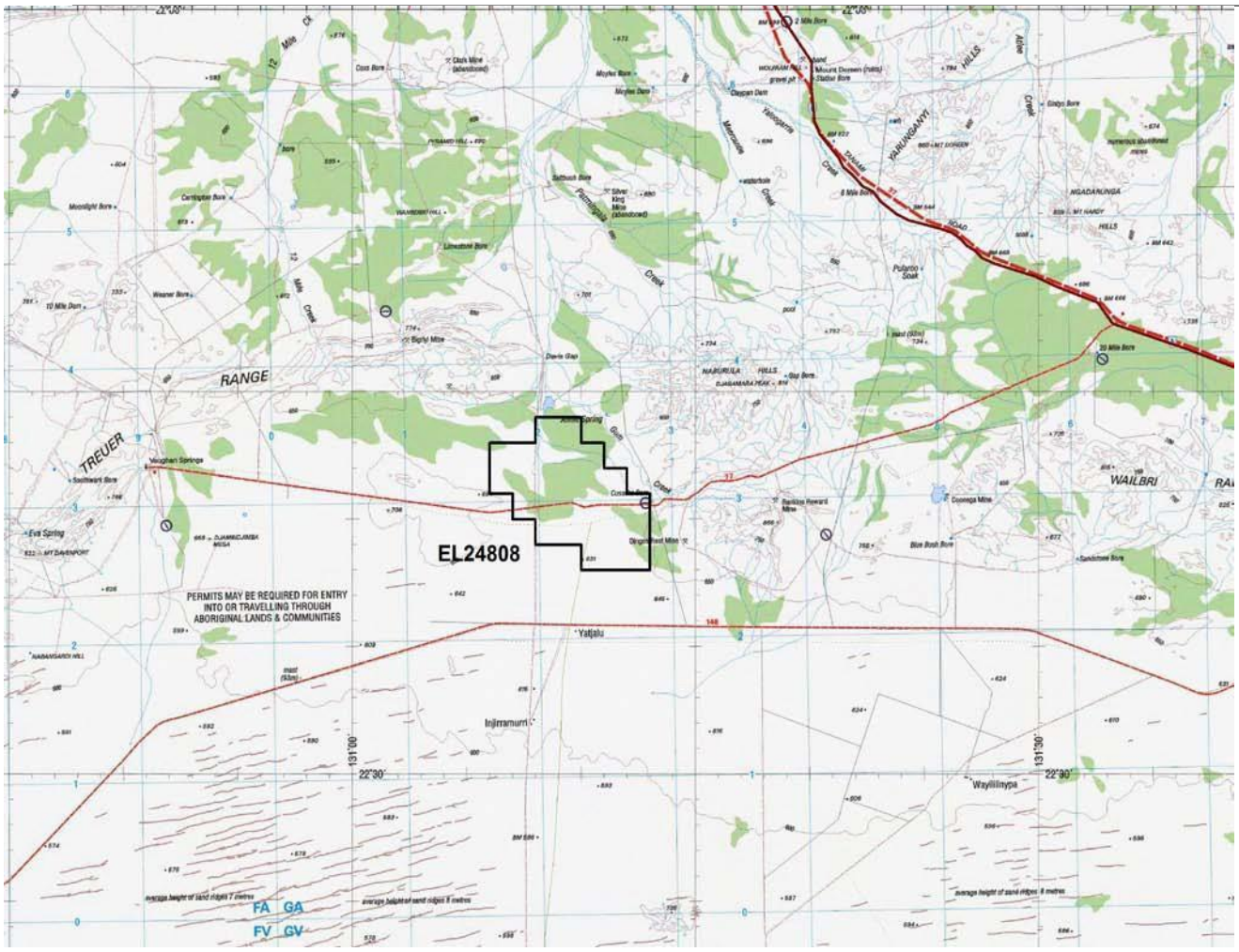


Figure 1: Eclipse Project – Topographic Map

5.0 REGIONAL GEOLOGY MINERALISATION

The Eclipse project covers parts 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. (Figure. 2)

The Ngalia Basin developed around 900mya and comprises a succession of basal late Proterozoic continental and possibly marine sediments overlain by continental fluvioglacial 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)

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 uraniferous, 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). Deposit locations are shown in Figure 2.

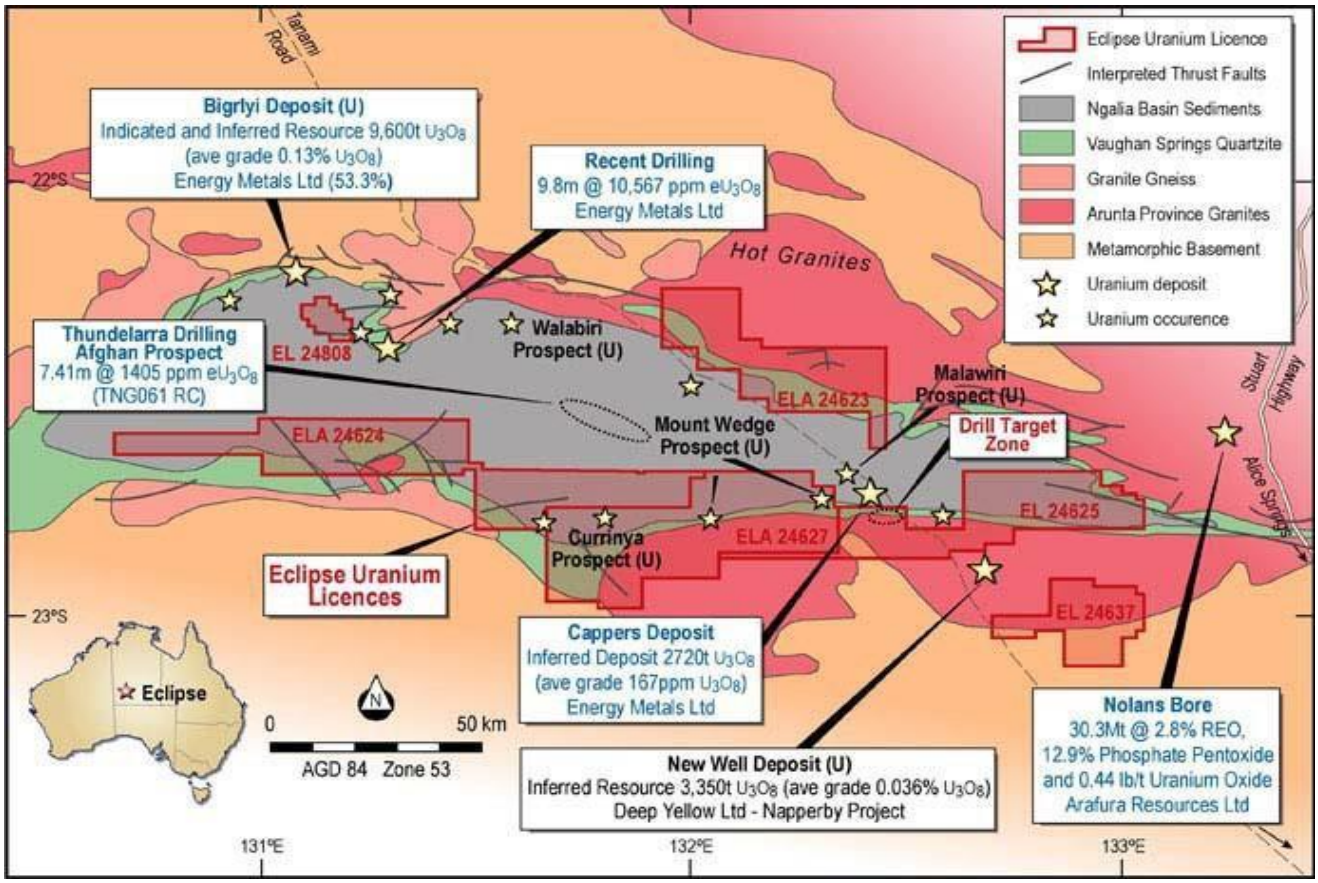


Figure 2: Regional Geology and Uranium occurrences of the Ngalia Basin

6.0 LOCAL GEOLOGY & MINERALISATION

EL 24808 covers an area of 27 graticular sub-blocks in the north-west part of the Ngalia Basin. The basin sediments are predominantly comprised of arenaceous continental and marine sediments of Pre-Cainozoic age. Surrounding and underlying pre-Upper Proterozoic rocks include gneiss, granite and quartzite. These crystalline and metamorphic rocks are considered to be the source of the sediment and the uranium.

In the project area the Vaughan Springs Quartzite is the oldest unit and unconformably overlies basement rocks. This is overlain by the Mount Doreen Formation comprising silicified dolomite, conglomerate and coarse sandstone, which is turn overlain by the Djagamara Formation and the Kerridy Sandstone. The youngest unit in the succession is the Mount Eclipse Sandstone which hosts

the uranium mineralisation in the area. The Mount Eclipse Sandstone is largely a medium to coarse grained felspathic sandstone with common carbonate. Lenses of conglomerate, arkose, dolomitic sandstone and shale are present. The sequence is interpreted to have formed in a braided, fluvial environment and has since been disturbed by broad scale folding and faulting (Fidler et al, 1990).

The ground is considered highly prospective for sandstone Bigrlyi style uranium mineralisation. These deposits are hosted within the Devonian to Carboniferous aged Mount Eclipse Sandstone with carnotite mineralisation hosted in surficial sediments, near surface calcrete horizons and tertiary uranium palaeochannel type deposits.

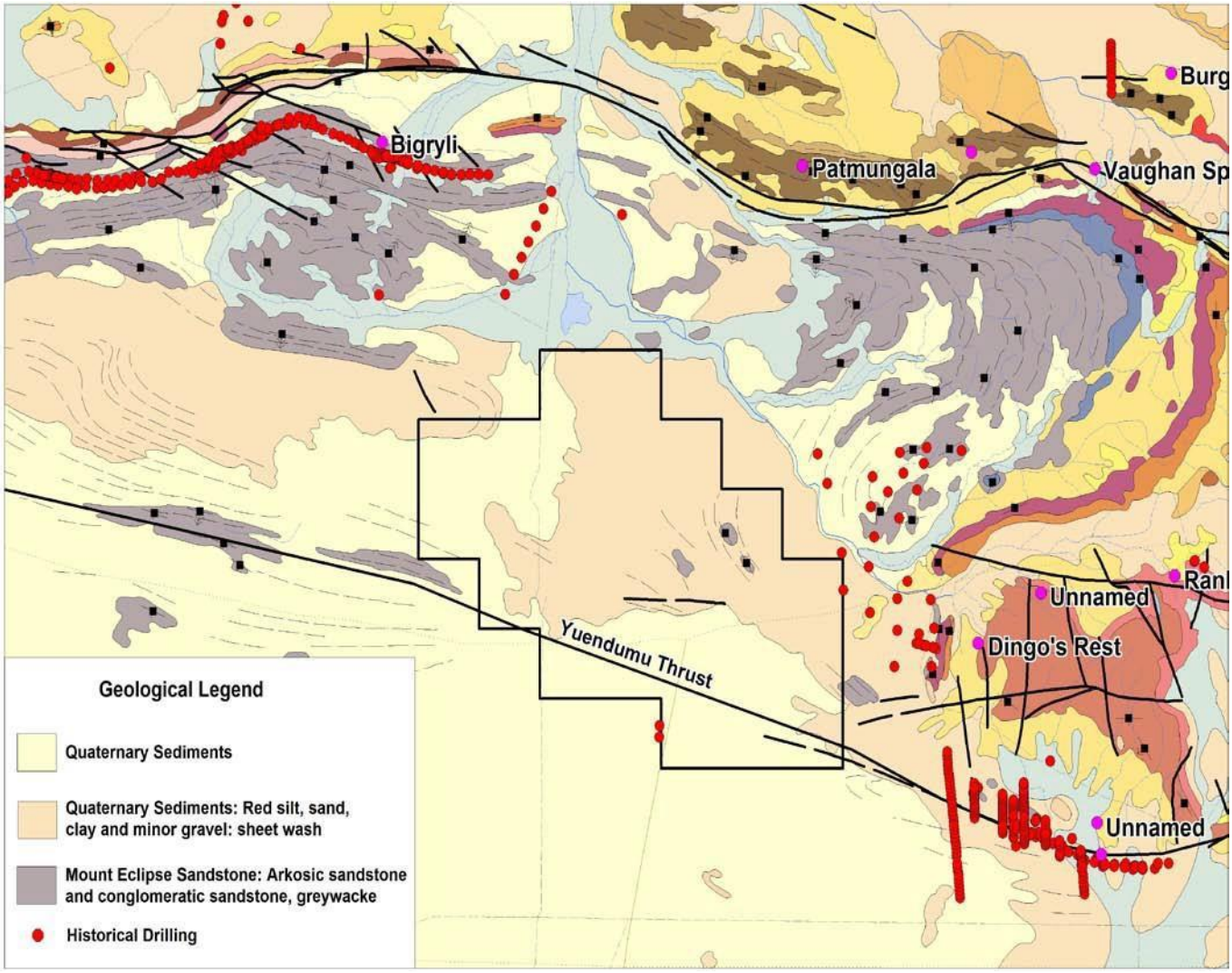


Figure 3: Regional Fact Geology and Uranium occurrences and Historical Drilling

7.0 PREVIOUS EXPLORATION

Limited historical exploration has been completed within the area covered by EL 24808. In 1970, uraniferous haematite-quartz veins were discovered, by Central Pacific Minerals NL, at Rankins Reward on the northern margin of the Ngalia Basin. This initiated interest in the area and exploration was carried out targeting sandstone-hosted uranium deposits in the sedimentary rocks of the basin. Remote sensing, geophysical and geochemical surveys and drilling were conducted in the basin over the next ten years. During 1970-73 carnotite was discovered in outcropping Mount Eclipse Sandstone

at several localities along the northern Ngalia Basin. Three small uranium deposits were delineated by drilling at Bigrlyi, Walbiri and Minerva/Malawiri (Lally and Bajwah, 2006).

Two percussion holes were drilled by AGIP Australia P/L (AGIP) during 1978 at Camel Flat North (on EL 24808) with depths of 100m and 130m. These targeted the boundary of the white and red facies of the Mount Eclipse Sandstone and encountered minor radiometric anomalies (Anon, 1978) (Figure 4).

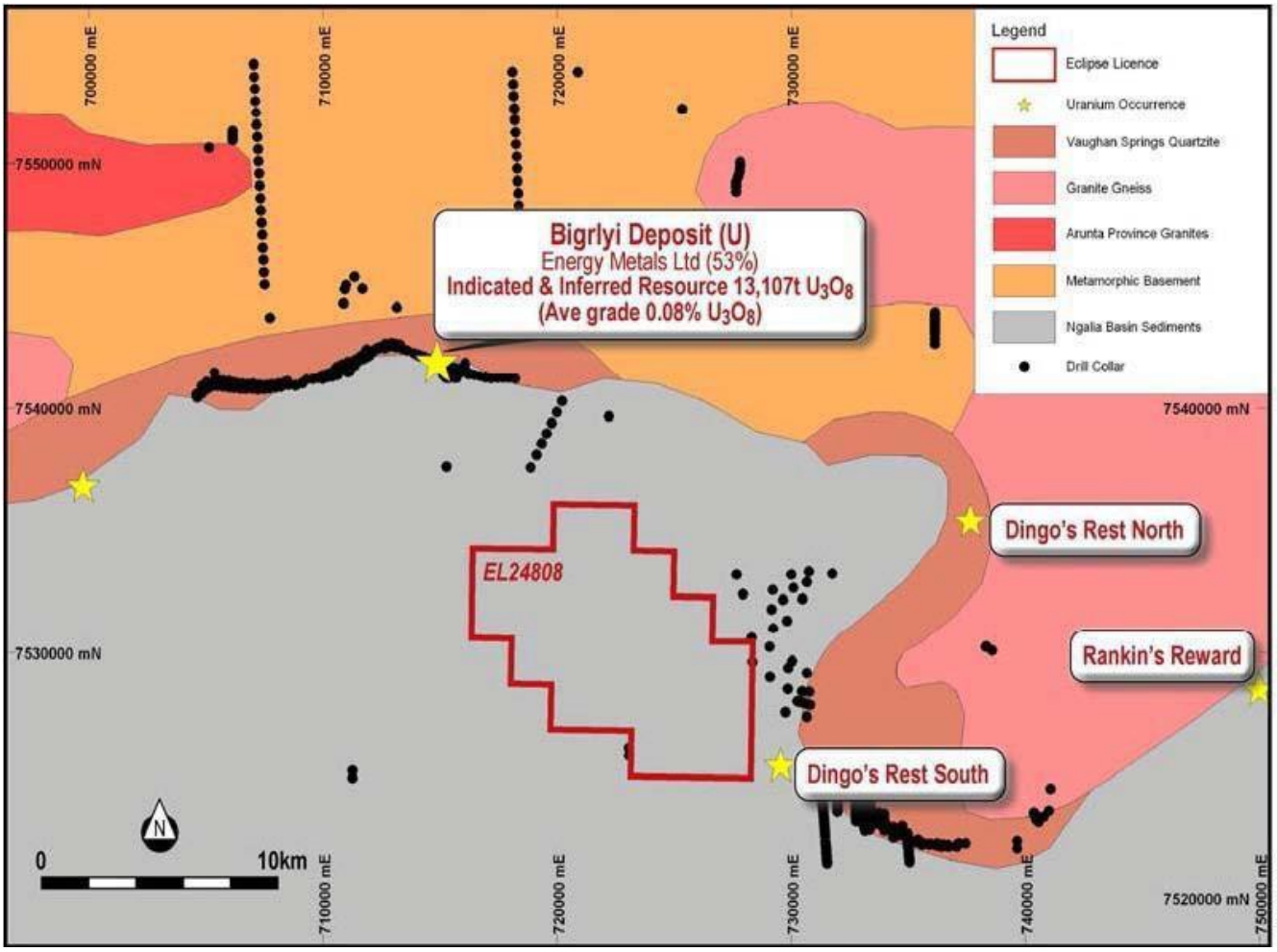


Figure 4: Historical Drilling surrounding EL24808

Cauldron commissioned a airborne Radiometric/Magnetic survey in 2008. The program, conducted by GPX Airborne, comprised 2,015 line km on 100m line spacing's with 1000m tie spacing's, that formed part of a larger survey totalling about 30,000 line km.

Interpretation of the airborne radiometric and magnetic data, in 2008 and 2009, shows the presence of surficial Uranium enrichment in the northern parts of the survey area which fade to the south as transported cover sediments dominate. Interpretation of the magnetic imagery indicates an area of strongly deformed sediments in the northern and central parts of the survey area associated with a major east-west trending thrust fault and a number of smaller fault splays. On this basis it is considered that there is an area of significant structural and geological features in the south eastern part of the licence which could provide a locus for uranium mineralisation.

5.1 DINGO'S REST

During 1979, Afmeco Mining and Exploration Pty Ltd completed a total of 17 drill holes at the adjacent Dingo Rest Prospect to the east of EL24808. Eight percussion holes (2,504.1m) and nine diamond holes (4135.1m) were drilled between Dingo's Rest North and Dingo's Rest South. Drilling targeted uranium mineralisation hosted within the Mount Eclipse Sandstone. A number of significant intersections were recorded associated with contact zones of discrete oxidation and reduced zones containing organic material and pyrite in the lower Mount Eclipse Sandstone. (French et al, 1979)

Mineralisation at both Dingo Rest North and Dingo Rest South is secondary and is hosted by medium to coarse grained arkosic Mount Eclipse Sandstone. Carnotite occurs as disseminations, fracture fillings, coatings on sand grains and 5cm diameter accretions. (Lally and Bajwah, 2006) (Figure 4).

Hole Id	Type	Hole Depth (m)	Results
DIN06	PERC	284	Maximum 200 cps at 148m
DIN10	DD	386.2	Maximum 1450 cps at 295.3-305.8m
DIN11	DD	456.2	Maximum 800 cps at 378.5 -378.9m
DIN12	DD	392.2	Maximum 3750 cps at 311.5- 312.9m.
DIN14	DD	614.2	Maximum 1700 cps 567.3 - 568.3m.
DIN15	DD	491.6	Maximum 450 cps at 384.9 & 404.5m.
DIN17	DD	619	Maximum 3450 cps 550.4 - 551.0m.

Table 2: Significant intersection from the Dingo's Rest Prospect

5.2 Bigrlyi Uranium Deposit

The Bigrlyi Uranium Deposit is owned by Energy Metals Ltd (53.3%, EME) and has Indicated and Inferred Resources of 13,100t U_3O_8 (average grade of 0.08% U_3O_8).

Uranium mineralisation was first discovered at Bigrlyi during ground radiometric traversing by Central Pacific Minerals NL, in 1973. Sixteen radiometric anomalies were defined over a strike length of 11km and were related to carnotite mineralisation at or near surface. Carnotite generally occurs in the weathered zone to depths of about 25m. Primary mineralisation consists of uraninite and montroseite hosted mostly by the lower part of the Devonian to Carboniferous Mount Eclipse Sandstone. (Lally and Bajwah, 2006)

Fidler et al (1990) divided the Mount Eclipse Sandstone at Bigrlyi into 8 informal subdivisions (Units A to H). Most mineralisation is hosted by the basal part of Unit C, which contains common to abundant carbonaceous material and pyrite. Less significant mineralisation is present in unit B above and unit D below.

Table 3: Bigrlyi – Indicated and Inferred Resources at 500ppm U_3O_8 cut-off

	Tonnes (millions)	U3O8 (ppm)	V2O5 (ppm)	U3O8 (t)	V2O5 (t)	U3O8 (Mlb)	V2O5 (Mlb)
Indicated	4.70	1,366.00	1,303.00	6,400.00	6,100.00	14.00	13.40
Inferred	2.80	1,144.00	1,022.00	3,200.00	2,900.00	7.10	6.30
TOTAL	**7.50**	**1,283.00**	**1,197.00**	**9,600.00**	**8,900.00**	**21.10**	**19.70**

8.0 ECLIPSE METALS LTD EXPLORATION

8.1 Feb 2011-09 Aug 2011 Period

Eclipse Uranium Limited became owners and operators of the Eclipse Project upon their successful listing on the ASX on February 17th 2011. Since their acquisition of the tenement they have been active in their work on the Eclipse Project. At present, the tenement is held 100% by Eclipse Metals Ltd. (EPM) formerly known as Eclipse Uranium Ltd, a change in management and company name was effected in July of 2012.

A drilling program was completed in April 2011 on EL24625. Followed in July 2011, the submission of a waiver for fifth year drops off from the tenement, which was approved. Simultaneously, a review of all the data provided by Cauldron Energy was completed and a database of historic drilling on and near to the tenements was updated to include newly available open file data.

The same year, EUL was involved in the Joint Systems Uranium (JSU) Ngalia Basin Project being conducted by the CSIRO. The project, collaboration between, CSIRO, the NT government and fellow uranium explorers Thundelarra and Energy Metals, aims to identify the geological, structural, mineralogical, alteration and fluid flow characteristics of uranium mineralisation within the Ngalia basin. The project has completed its final year in 2011 which culminated in a workshop hosted at Bigrlyi. Currently Eclipse is reviewing the final report.

8.2 2011-2012 Period

Another accomplishment was the completion in September 2011 of a Fugro Tempest Airborne Electromagnetic program on the Eclipse Project (Figure 5). The program was designed to be flown at 1,000m line spacing with tie lines at between 2,500m and 4,750m depending on the area. A 400m line spaced infill was completed over the conductive target zone in EL24637. The final report and datasets were delivered by Fugro in December 2011.

Processing of the 2011 Tempest data has defined a series of conductive targets for further investigation on each of the three granted tenements (Figures 4 & 5). At this stage it is considered that the targets may represent both structure related conductive features as well as interpreted sedimentary targets. Through detail interpretation of airborne Tempest Survey, target areas have been identified and are illustrated in Figure 7.

The change in management has resulted in a modification of the exploration schedule for EL24808. The fieldwork and drill campaign formerly planned on EL24808 between July-October 2012 (prior to the rainy season) has been cancelled to give adequate time to the new staff to re-evaluate the prospectivity of the tenement. Furthermore, on 31 July 2012, EPM has requested withdrawal of the previously filed Mining Management Plan for the Eclipse Project from authorization.

8.3 2012 to Present

In early May 2013, Kastellco Geological Consultancy ("**KGC**") has been able to complete its re-assessment of EL24808 and considers it a tenement bearing high prospectivity for hosting economic uranium mineralisation. This was based on a detail review of existing historical exploration data within the Northern Territory Geological Survey Database and the previous reports from Cauldron Energy Ltd. This was conducted for all the Project areas to identify any high potential gold, base metal and uranium exploration targets and resulted in the identification of several targets that warrant further work. The targeting was undertaken at a high level to identify areas of interest that

stand out in the regional re-interpreted geophysical data. Historical prospects were reviewed to determine the effectiveness of the previous exploration and evaluate remaining potential within the Exploration Licence area.

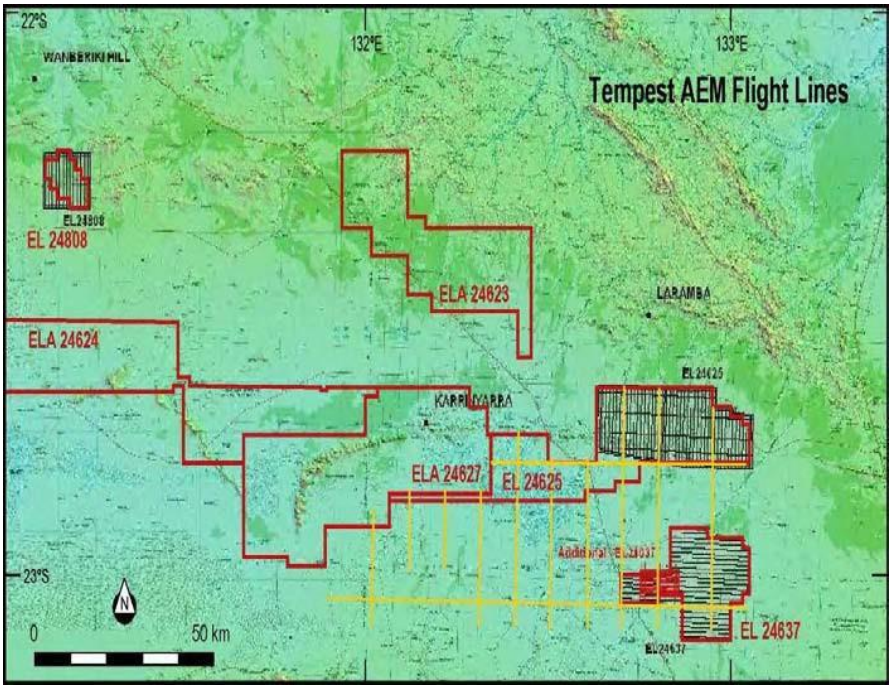


Figure 5: Tempest AEM Flight Lines over EL24808

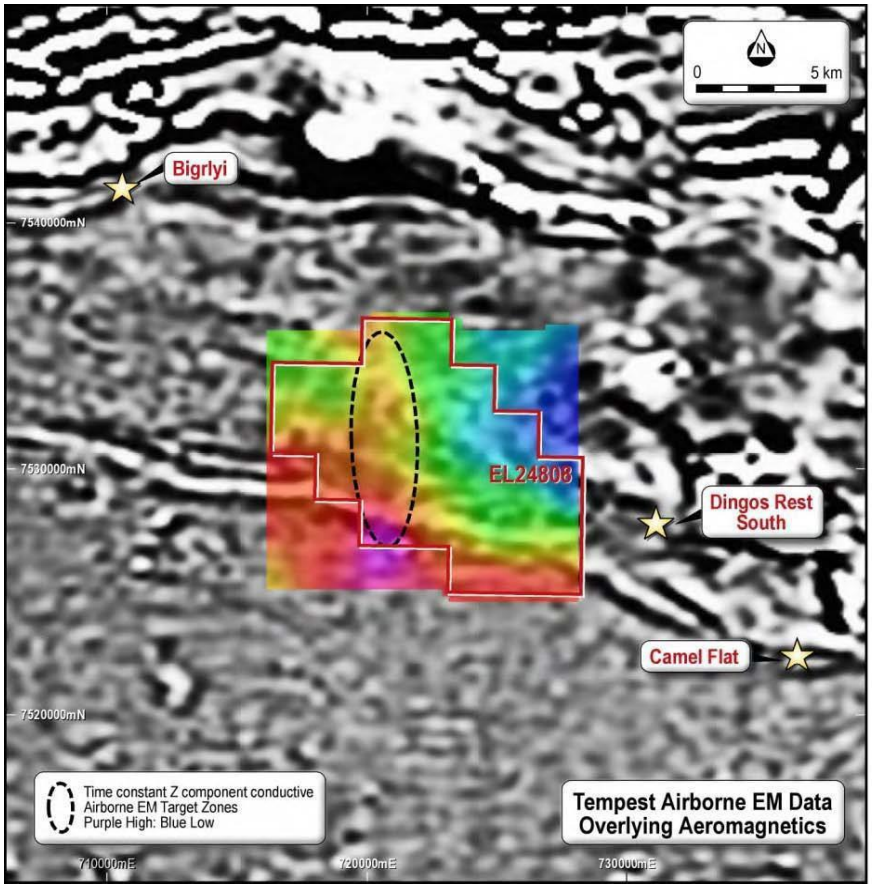


Figure 6: Tempest AEM Targets outlined (Purple High/Blue Low

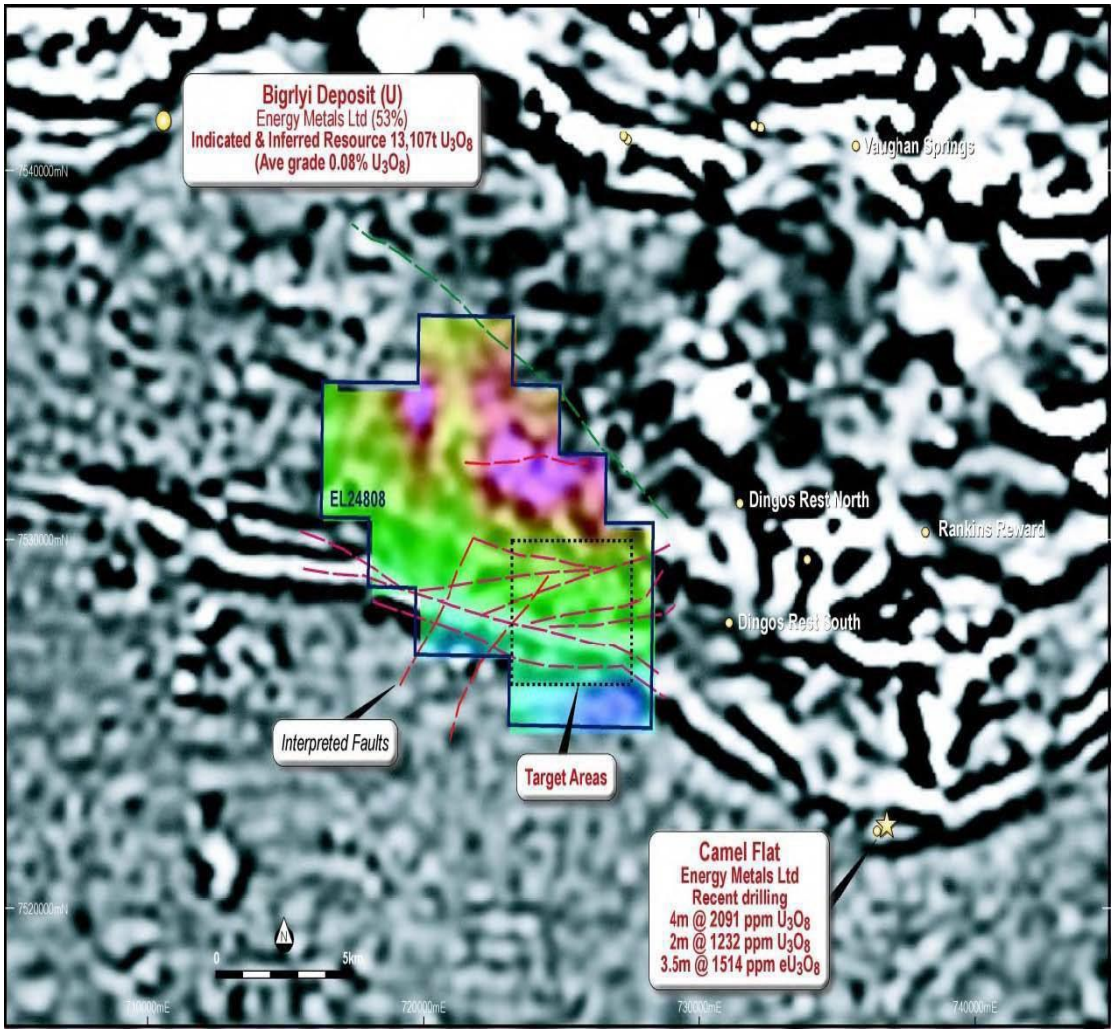
8.3 2015-2016 Period

During the 2015/2016 reporting period Eclipse undertook a reassessment of previous exploration and open file data, along with a reinterpretation of historic surveys and associated data to formulate future exploration programs. The new management for Eclipse is eager to continue the exploration effort already carried out since 2011 and approach 2016/2017 with a strong exploration program. It is proposed that the new exploration program will include the postponed drill program from 2013-14. Additional geophysical work is being planned to help improve the definition of targets. The former Mining Management Plan had been approved for a 40 drill holes program on EL24808. The Target Area and drill hole locations for the program indicated in Figure 7 & 8 will be revised on completion of a new ground gravity survey.

The drill program targets the Mount Eclipse Sandstone and the Yuendumu Thrust Fault (a major ENE-WSW trending thrust fault) with its associated interpreted splay faults. The target area located in the south eastern part of the licence hold significant structural and geological features interpreted as providing a favourable locus for uranium mineralisation.

Furthermore, it is planned that the drill program will be immediately followed by field assessment (including mapping and sampling) of the ground spatially associated with the interpreted conductive zone (see Figure 6). The result of the field work will help refine target generation and may lead into the planning further drilling programmes.

Figure 7: Target Area for Drilling Programme



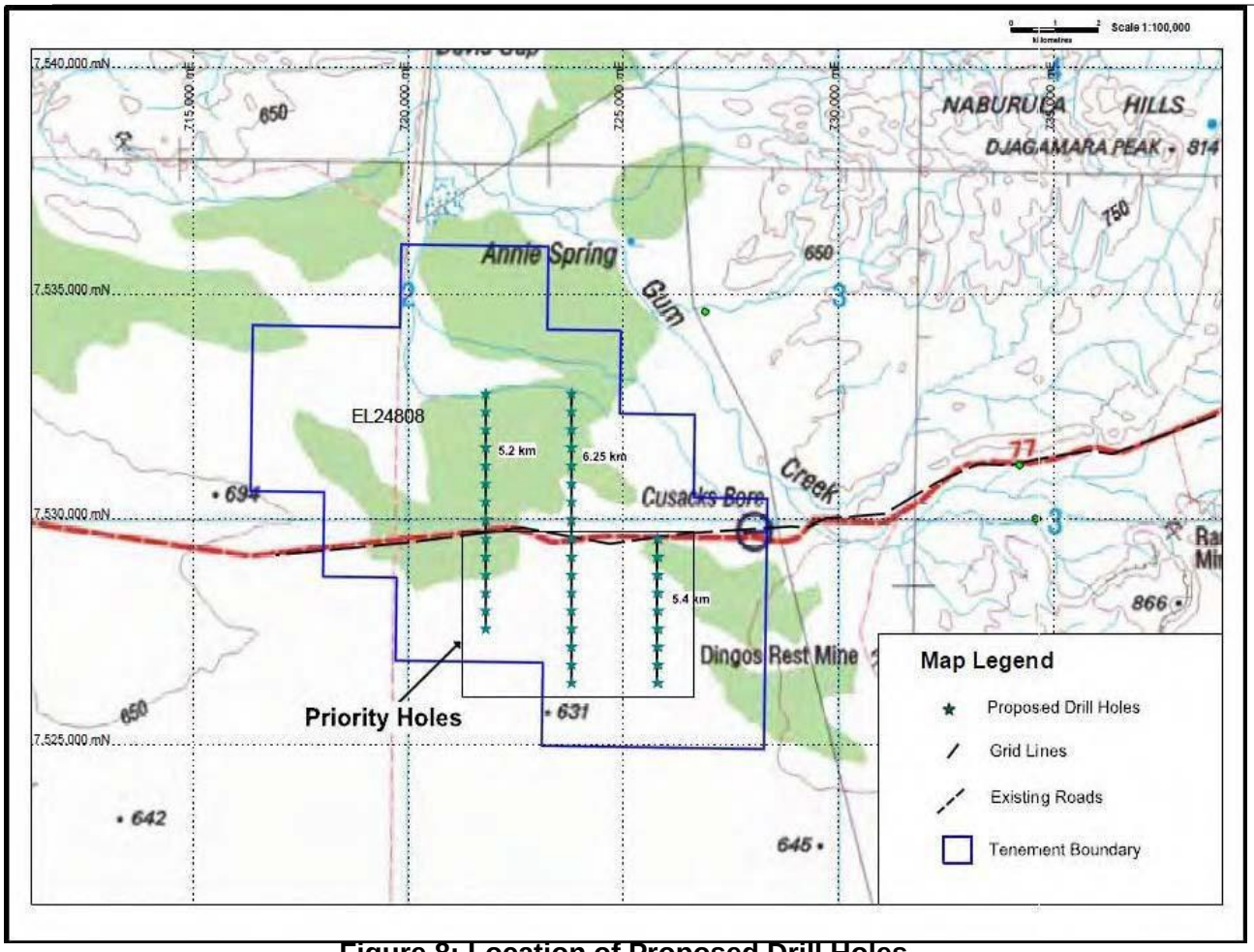


Figure 8: Location of Proposed Drill Holes

9.0 CONCLUSIONS

Eclipse considers EL 24808 to be highly prospective for uranium mineralisation within the Mount Eclipse Sandstone. This mineralisation could be in a similar style to the Bigrlyi Deposit or the Camel Flat Prospect. Mineralisation may also be associated with the Yuendumu Thrust Fault and the interpreted associated splay faults. The prospectivity of EL24808 is further reinforced with the recent ramping up of exploration activities within the Ngalia Basin.

The Tempest program was designed to investigate other styles of uranium mineralisation and possible variations in cover sediment within EL24808 and the other two granted tenements.

10.0 REFERENCE

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