



## Australian Uranium Conference 2015

**Dr Weidong Xiang  
Managing Director  
Energy Metals Limited**



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Information in this presentation relating to exploration results, data and cut off grades is based on information compiled by Dr Wayne Taylor. Dr Taylor is a member of the AIG. Dr Taylor is a full time employee of Energy Metals. He 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 “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves – The JORC Code (2012)”. Dr Taylor consents to the inclusion of the information in the report in the form and context in which it appears.

All amounts in A\$ unless stated otherwise.



# Australia's Uranium

**Bigirlyi & Ngalia**

Macallan

Mopoke Well

Lake Mason

Anketell

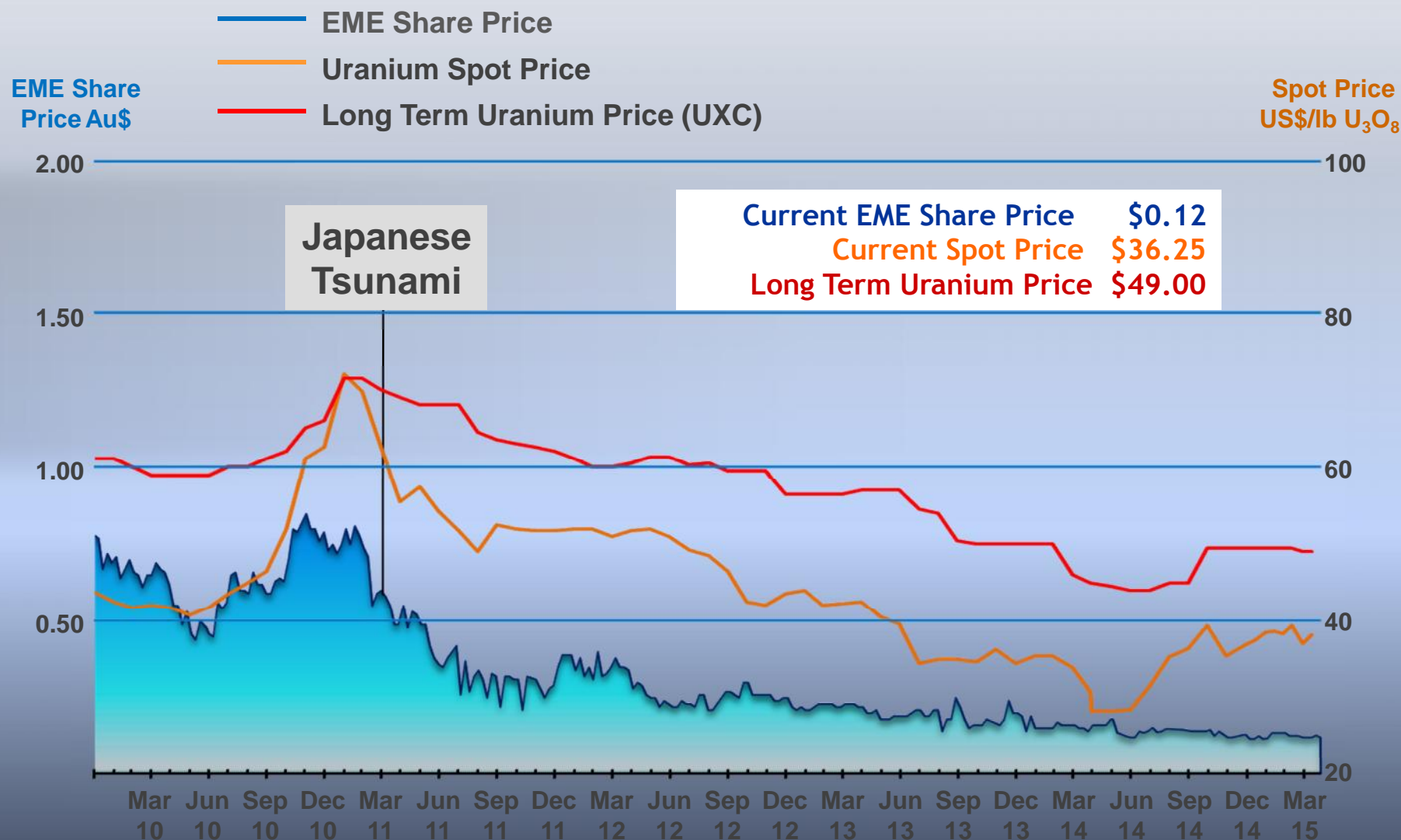
Manyingee

Lakeside





# Energy Metals Share Price vs U<sub>3</sub>O<sub>8</sub> Spot Price Since 2010





# Energy Metals Limited

## Capital Structure



Shares on Issue	209.7m
Shareholders	704
Cash & Bank (31 Dec 2014)	\$23.1m

## Major Shareholders

China Uranium Development Company Ltd	139.3m	66.45%
KangDe Investment Group	26.5m	12.66%
Jindalee Resources Limited	14.0m	6.69%



# Energy Metals Financial Position (Ended 31 December 2014)

Au\$

## CURRENT ASSETS

Cash and cash equivalents	11,609,364
Term deposit	11,307,540
Trade and other receivables	232,579
Total Current Assets	23,149,483

## NON-CURRENT ASSETS

Receivables	143,910
Property, plant and equipment	405,783
Exploration and evaluation expenditure	32,127,774
Total Non-Current Assets	32,677,467
<b>TOTAL ASSETS</b>	<b>55,826,950</b>

## CURRENT LIABILITIES

Trade and other payables	132,234
Provisions	93,311
Total Current Liabilities	225,545
<b>TOTAL LIABILITIES</b>	<b>225,545</b>

## NET ASSETS **55,601,405**

## EQUITY

Contributed equity	59,051,644
Accumulated losses	(3,450,239)

## Capital and reserves attributable to owners of Energy Metals Limited **55,601,405**

## TOTAL EQUITY **55,601,405**





**CGN** (China General Nuclear Power Group)

- **Clean energy group (established 1994)**
- **Gross assets RMB390B (US\$63B)**
- **Net assets RMB120B (US\$19B)**
- **11 operating nuclear generating units(11.62GWe)**
- **13 other nuclear generating units under construction (15.50GWe)**
- **6,900 MWe installed capacity for wind power generators in operation**
- **650 MWe capacity for solar photovoltaic power generators**
- **1,470 MWe controlling equity capacity for hydro power**

***As of 31 Dec 2014***

Nuclear equipment R&D center



Nuclear power plant construction technology R&D center



Nuclear fuel element R&D center



Discovering  
Clean Energy



# CGN - Nuclear Power

- **11** units in operation, with a total installed capacity of **11,620 MWe**
- **13** units under construction, with a total capacity of **15,500 MWe**



● **in operation**

GNPS

LNPS Phase I

LNPS Phase II

Unit 1, 2 of Ningde NPP  
Phase I

Unit 1, 2 of Hongyanhe  
NPP Phase I

Unit 1 of Yangjiang NPP

★ **under construction**

Units 3, 4 of Ningde NPP  
Phase I, Fujian

Unit 3, 4 of Hongyanhe  
NPP Phase I, Liaoning

Unit 2-6 of Yangjiang,  
Guangdong

Taishan Phase I,  
Guangdong

Fangchenggang Phase I,  
Guangxi

▲ **under review**

Lufeng project,  
Guangdong

Hongyanhe Phase II,  
Liaoning

Xianning project, Hubei



Discovering  
Clean Energy



**Energy**  
Metals Limited



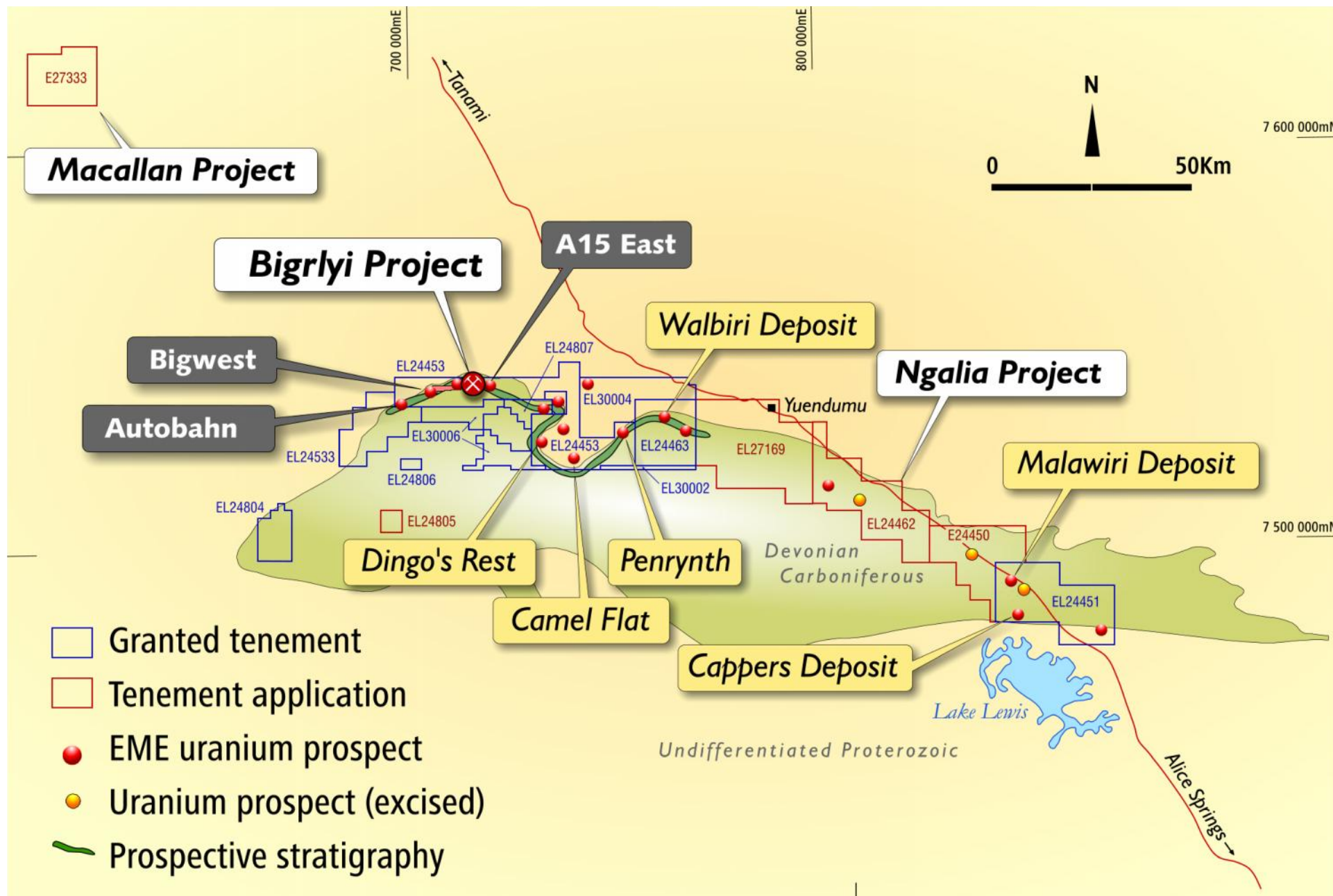
# Northern Territory Projects.



Discovering  
Clean Energy

**energy**  
Metals Limited

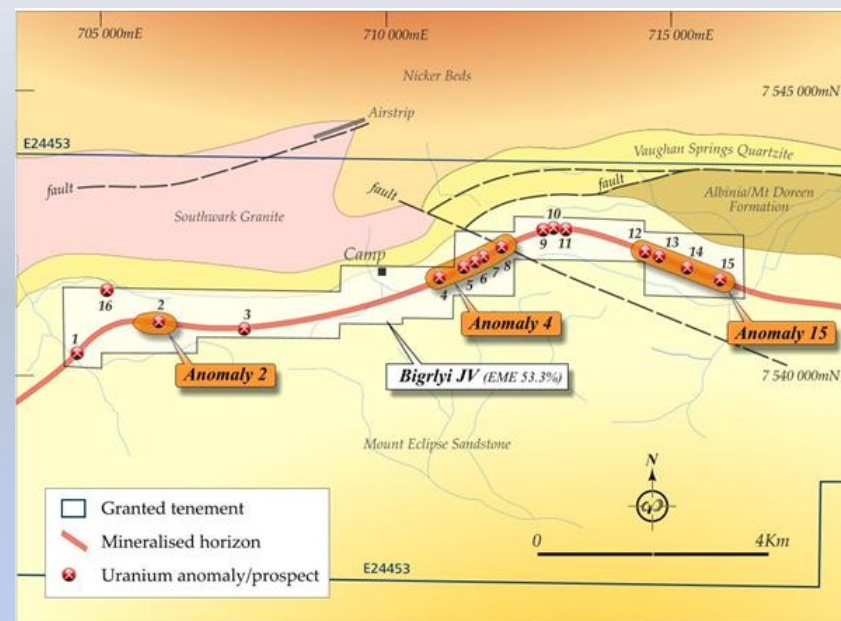






# Bigrlyi Joint Venture Project

- Several drilling programs, concentrating mostly on the Anomaly 4 and Anomaly 15 deposits, were completed at Bigrlyi in the period from 2006 to 2011 with most holes intersecting significant uranium mineralisation. Uranium and vanadium resource estimates were successively modelled incorporating results from these drilling programs.



## Bigrlyi Mineral Resource Estimate at a 500ppm $U_3O_8$ cut-off (2011)

Resource Category	Tonnes (millions)	$U_3O_8$ (ppm)	$V_2O_5$ (ppm)	$U_3O_8$ (t)	$V_2O_5$ (t)	$U_3O_8$ (Mlb)	$V_2O_5$ (Mlb)
Indicated	4.7	1,366	1,303	6,400	6,100	14.0	13.4
Inferred	2.8	1,144	1,022	3,200	2,900	7.1	6.3
<b>Total</b>	<b>7.5</b>	<b>1,283</b>	<b>1,197</b>	<b>9,600</b>	<b>8,900</b>	<b>21.1</b>	<b>19.7</b>





## Bigrlyi Joint Venture Project

- A Pre-Feasibility Study completed in mid-2011.
- A substantial increase in the resource base would positively impact the economics of the Bigrlyi project.
- In addition, a program to investigate and verify the uranium resource potential of prospects on Joint Venture ground within the broader Ngalia Basin was begun during the year.
- Due to the depressed uranium market, Joint Venture development plans for the Bigrlyi project are on hold pending improved economic conditions.



## 2014 Exploration Activities in the Ngalia Project Area

In February 2014, maiden JORC-compliant resource estimates, totalling 626 tonnes  $U_3O_8$ , were released for three Bigirlyi satellite deposits:

Deposit	Cut-off $U_3O_8$ (ppm)	Resource Category	Tonnes ('000t)	$U_3O_8$ (ppm)	$U_3O_8$ (tonnes)
Camel Flat	100	Inferred	211.3	1,384	292

Deposit	Cut-off $eU_3O_8$ (ppm)	Resource Category	Tonnes ('000t)	$eU_3O_8$ (ppm)	$eU_3O_8$ (tonnes)
Anomaly 15 East	100	Inferred	142.0	1,320	187
Bigwest	100	Inferred	407.3	362	147

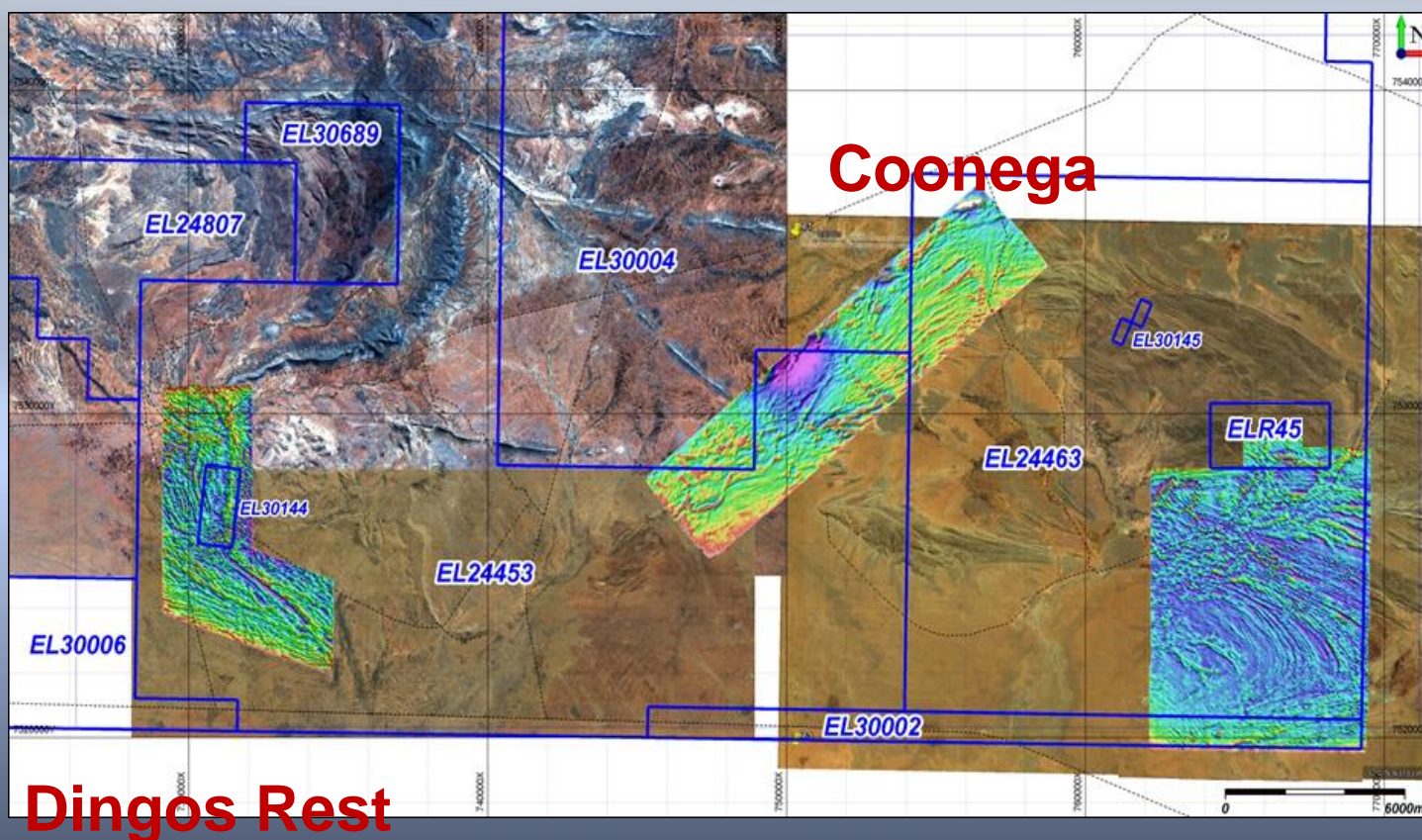
- The Mineral Resources have been classified and reported in accordance with JORC (2012) requirements. The resource classification is based on the assessed level of confidence in sample methods used, geological interpretation, drill spacing and geostatistical measures.



# 2014 Exploration Activities in the Ngalia Project Area

## Geophysical Survey

To enable accurate targeting, Energy Metals commissioned a high-resolution (50m-line-spaced), helicopter-borne magnetic and radiometric survey over four key areas of the Ngalia Basin (Dingos Rest, Coonega, Walbiri South and Malawiri). Example of imagery below:

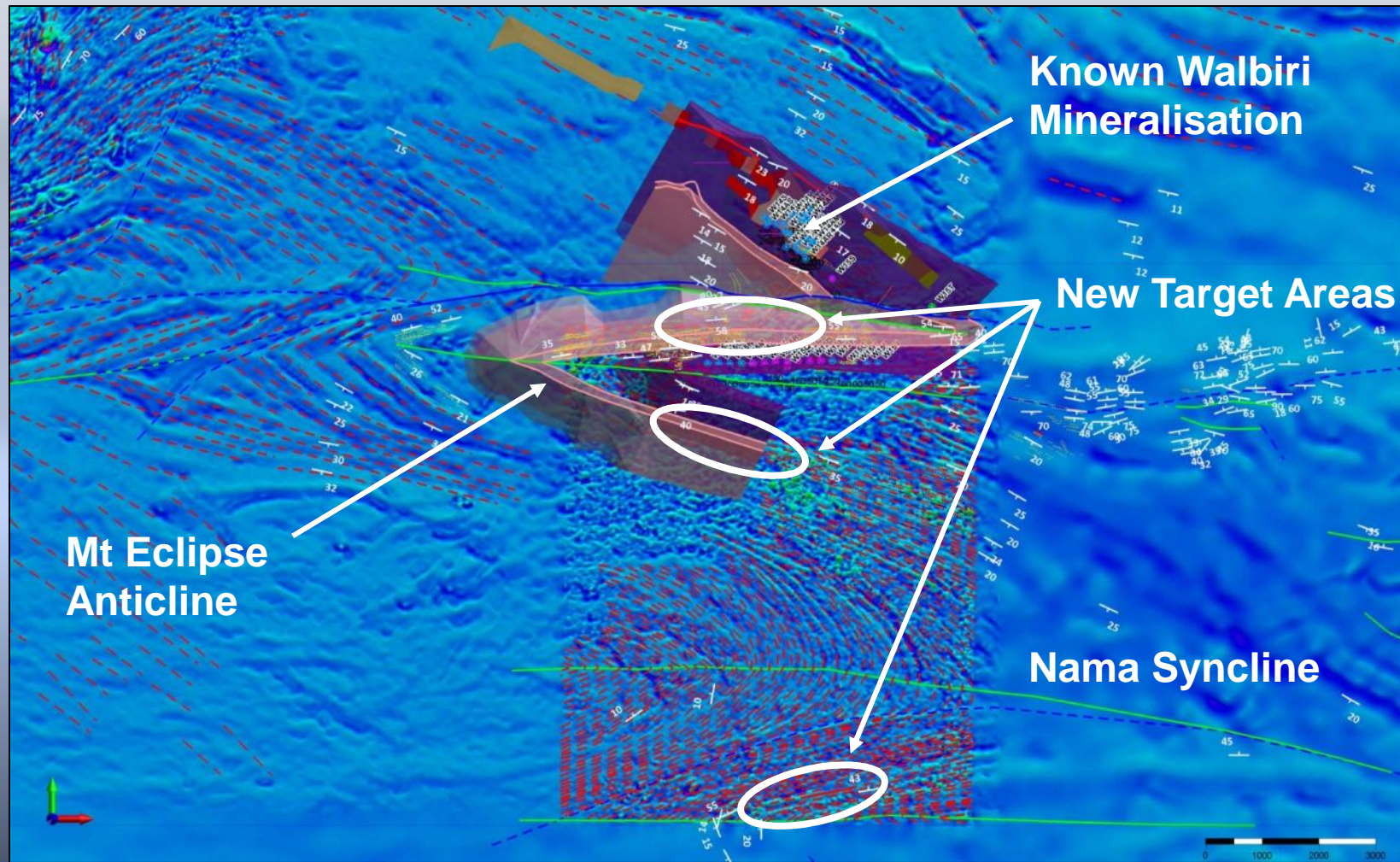




# 2014 Exploration Activities in the Ngalia Project Area

## Walbiri South Target

Based on the geophysical survey, a new geological model has been developed for the Walbiri area allowing prospective beds to be traced around fold axes to the south.

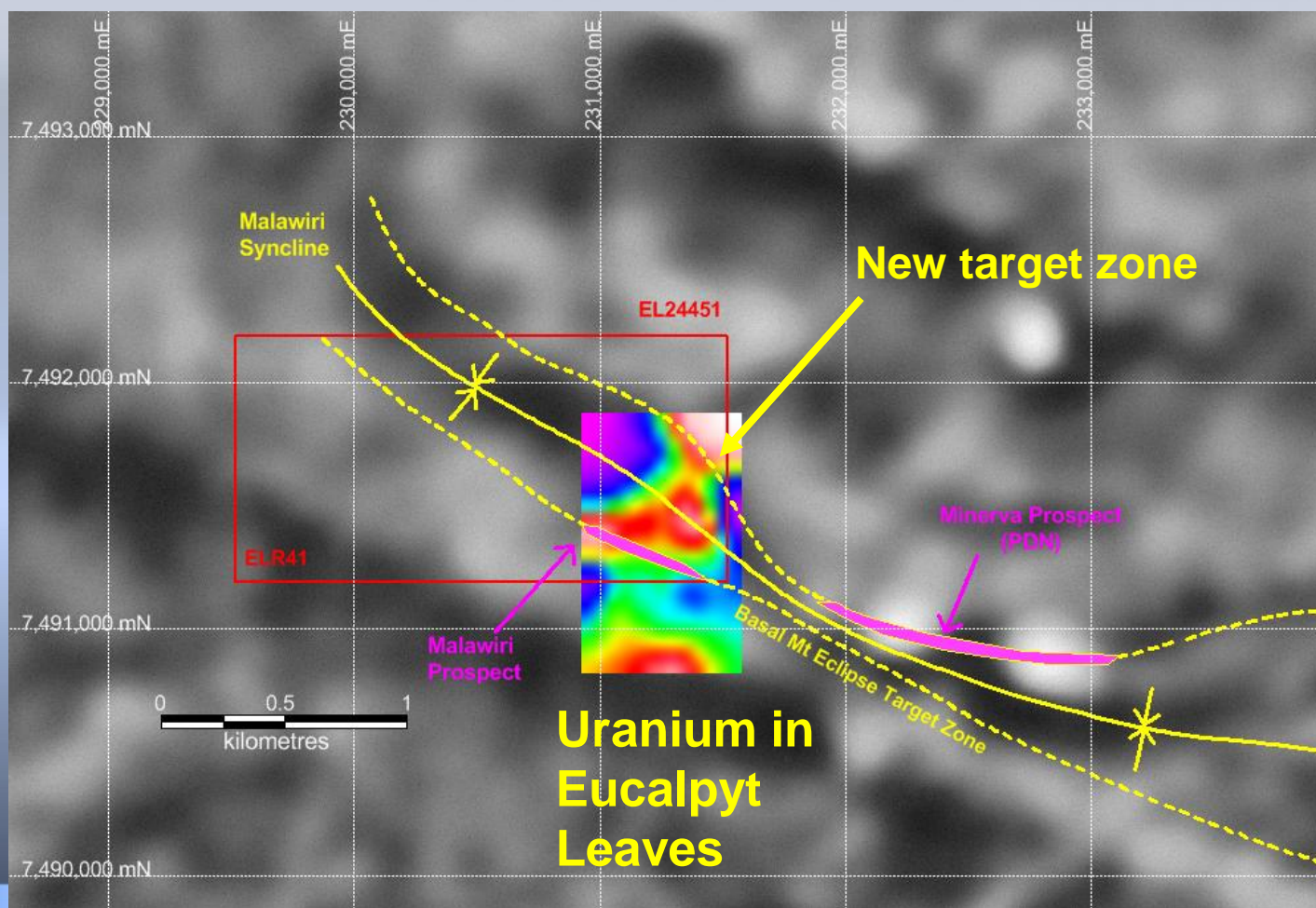




# 2014 Exploration Activities in the Ngalia Project Area

## Geophysical & Biogeochemical Survey - Malawiri

Combined deep-sensing magnetic imagery and a biogeochemical survey to detect buried uranium has led to development of a new geological model for buried uranium mineralisation in the Malawiri area and new target zones for drill-testing have been identified.

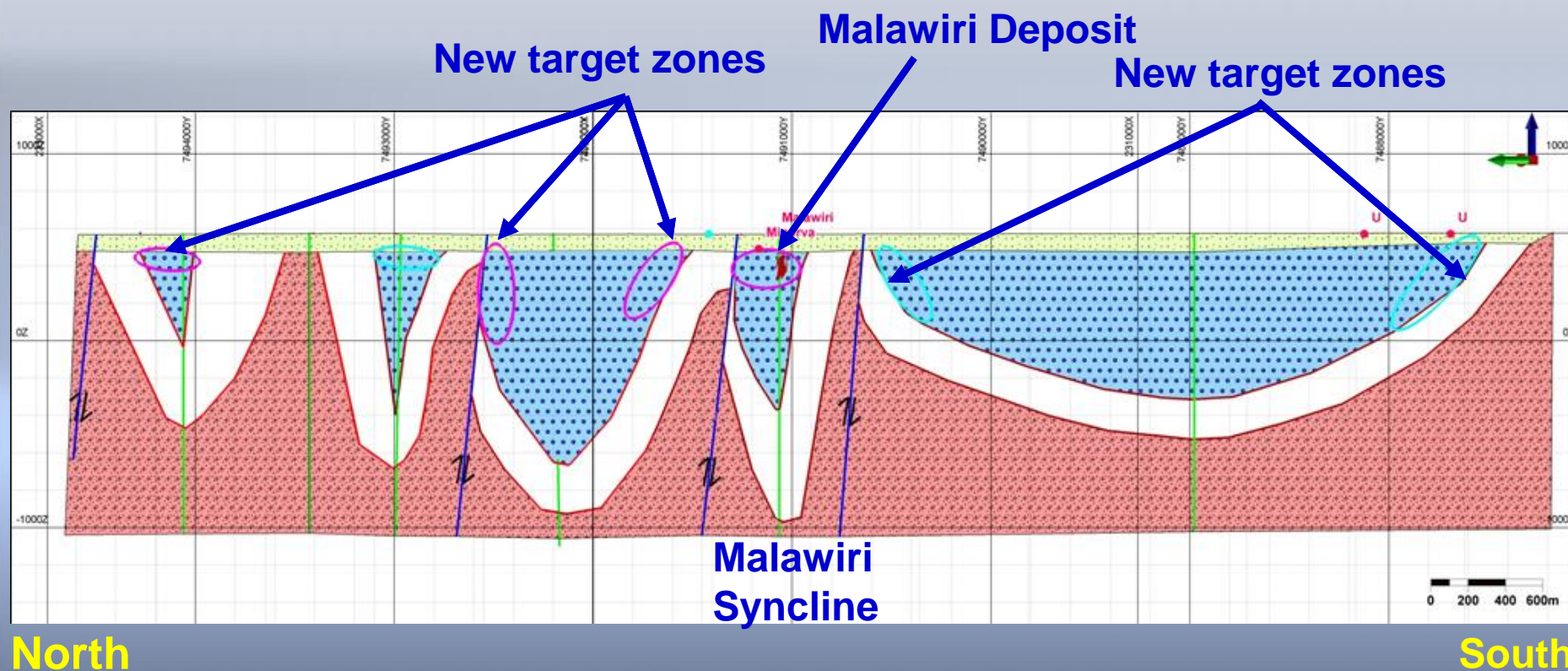




# 2014 Exploration Activities in the Ngalia Project Area

## New Malawiri Geological Cross-Section

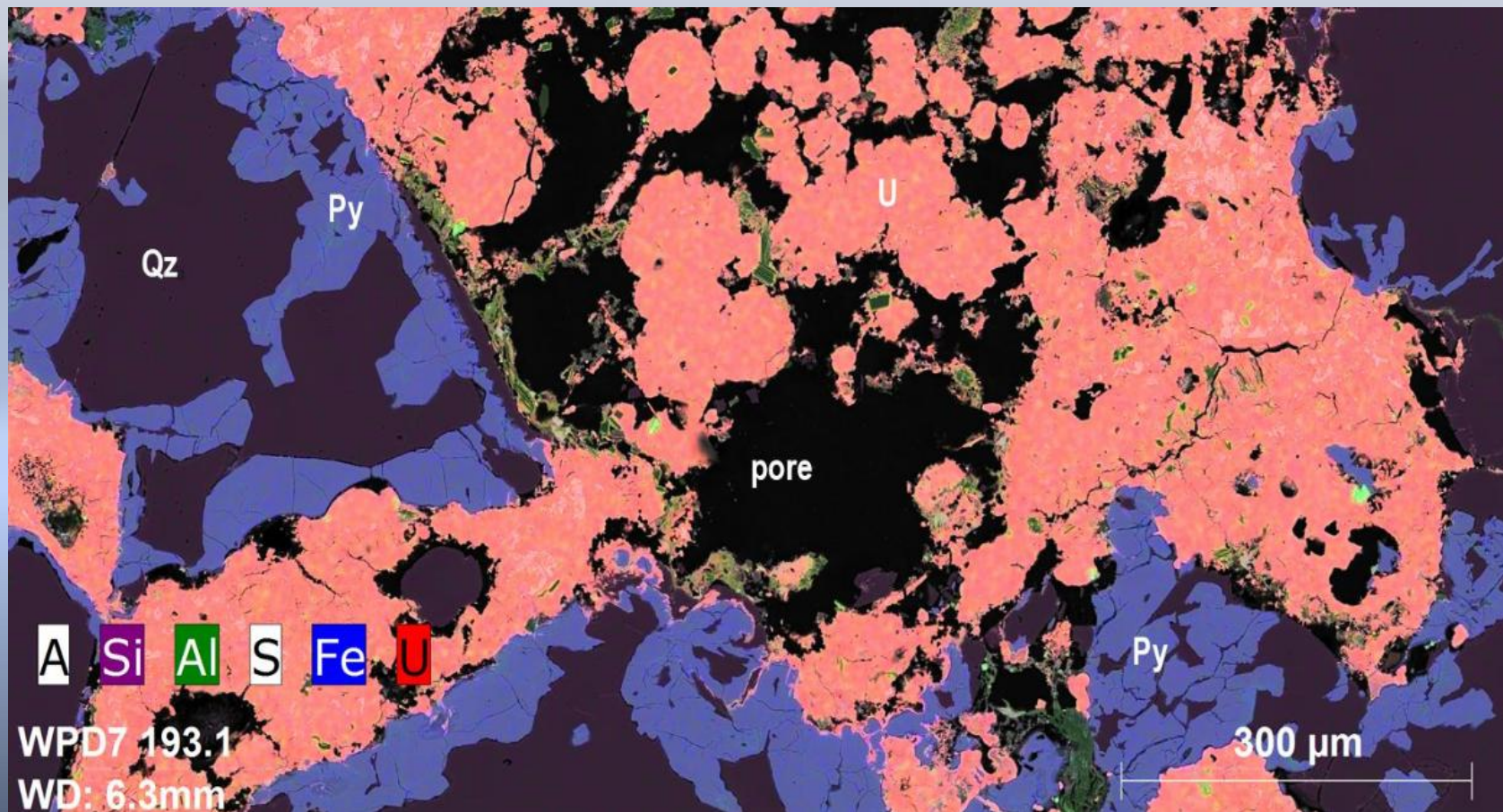
Deep-sensing magnetic imagery suggests prospective sandstone in the Malawiri area is repeated in a series of synclines allowing identification of many new target zones.





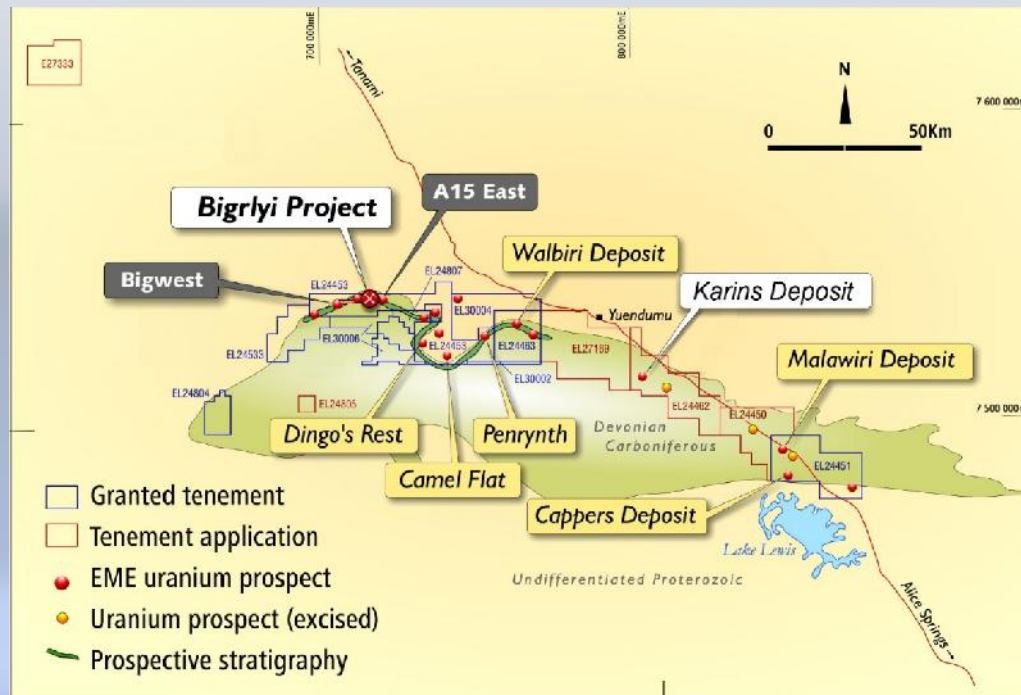
## 2014 Ore Minerals Study

Studies of ore mineral textures in key deposits show that uranium minerals commonly replace earlier-formed pyrite as this example from Walbiri shows.





# 2015 Mineral Estimate Work - Karins Deposit



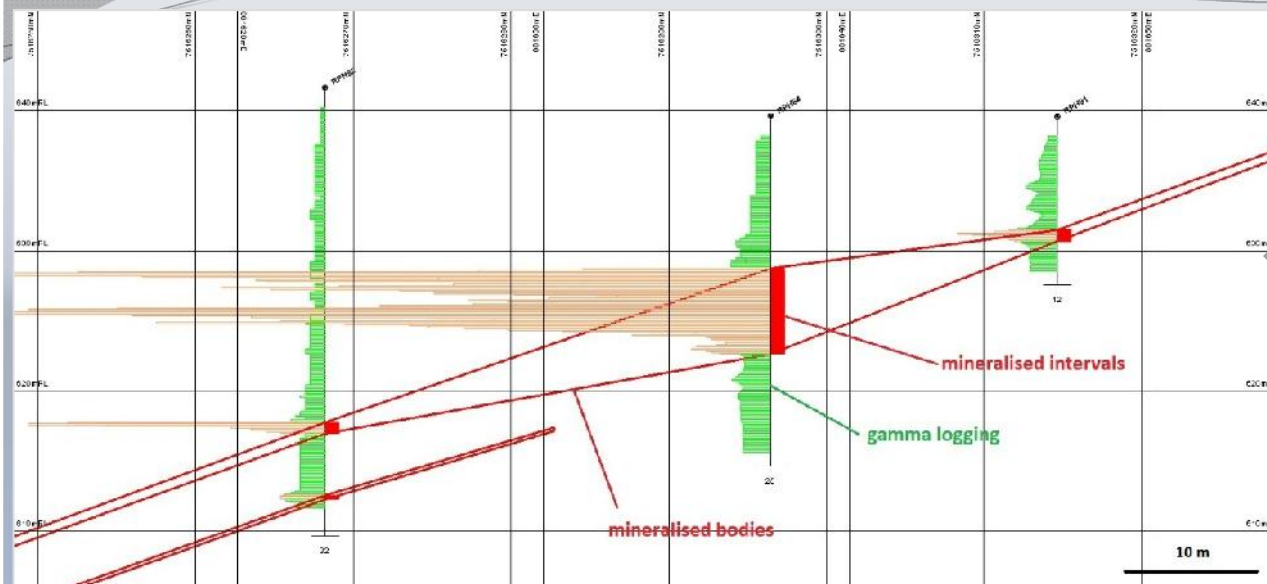
The historical Karins deposit is a tabular sandstone-hosted uranium deposit similar to the Bigrlyi deposit, although with an oxidised zone up to 60m thick from surface dominated by carnotite mineralisation.

Karins was discovered by Central Pacific Minerals (CPM) in 1973. Exploration work was carried out by CPM in the period 1974 to 1981.

- EME prepared a resource estimate based on digitised and re-processed gamma logs for 110 historical holes drilled by CPM.
- The historical data and metadata were verified and archival drill core re-logged to provide a high-confidence dataset as the basis of the resource determination.

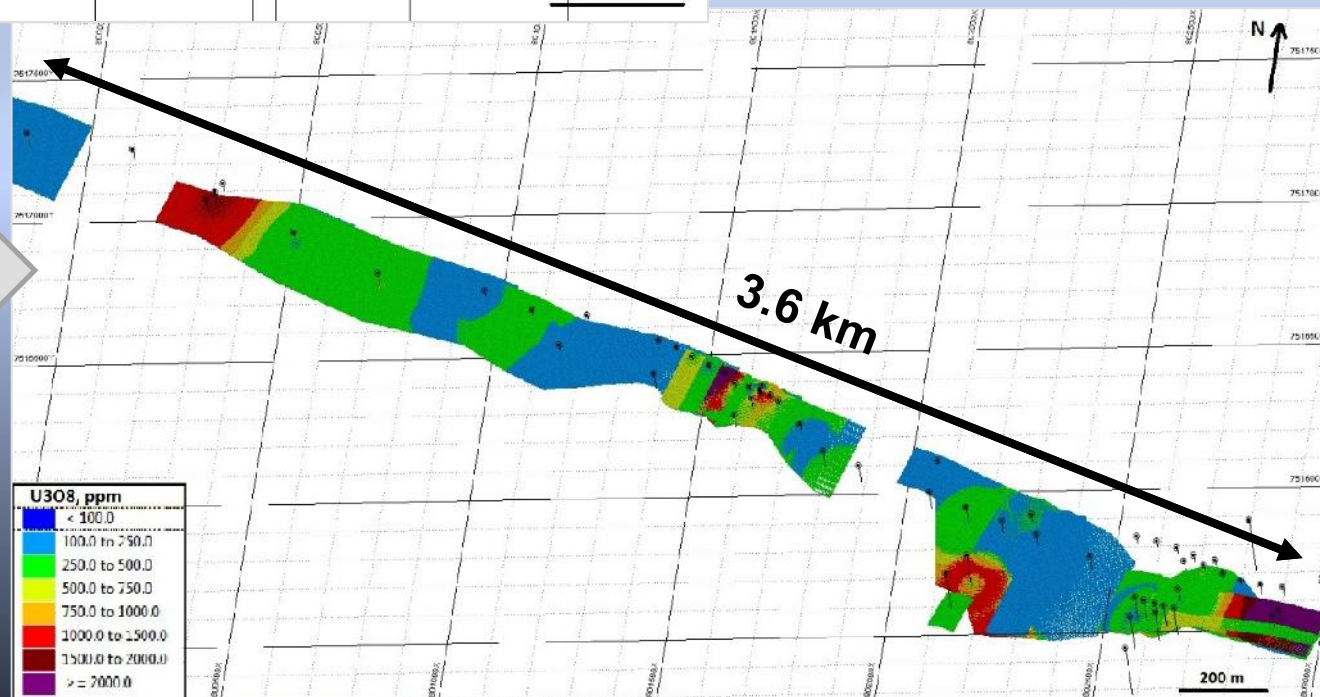


# 2015 Resource Estimate Work - Karins Deposit



Example of the Interpretation of Mineralised Bodies along the RPH92, RPH64, RPH91 section

View showing grade distribution within mineralised bodies





## 2015 Resource Estimate Work - Karins Deposit

Estimate of Mineral Resources for the Karins Deposit (Ngalia Basin), announced July 2015 - 691 tonnes  $U_3O_8$  at 556 ppm (200 ppm cut-off)

Category	Type	Volume '000 m <sup>3</sup>	Tonnes '000 t	Grade		Mineral Resources	
				$U_3O_8$ ppm	U %	$U_3O_8$ tonnes	$U_3O_8$ M lb
Inferred	Oxidised	290	719	526	0.045	379	0.83
Inferred	Primary	211	524	597	0.051	312	0.69
<b>Inferred</b>	<b>Total</b>	<b>501</b>	<b>1,243</b>	<b>556</b>	<b>0.047</b>	<b>691</b>	<b>1.52</b>

### Notes:

- ✓ The Mineral Resources are for a 100% interest in the joint venture and not the Mineral Resources attributable to the individual joint venture partners.
- ✓ Mineral Resources are based on 200 ppm cut-off grade per resource block.
- ✓ Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
- ✓ Mineral Resources are based on JORC-2012 definitions.
- ✓ Mineral Resources are based on a bulk density of 2.48 t/m<sup>3</sup>.
- ✓ Rows and columns may not add up exactly due to rounding.



# Western Australian Projects.





# Lakeside Project – Resource Estimate

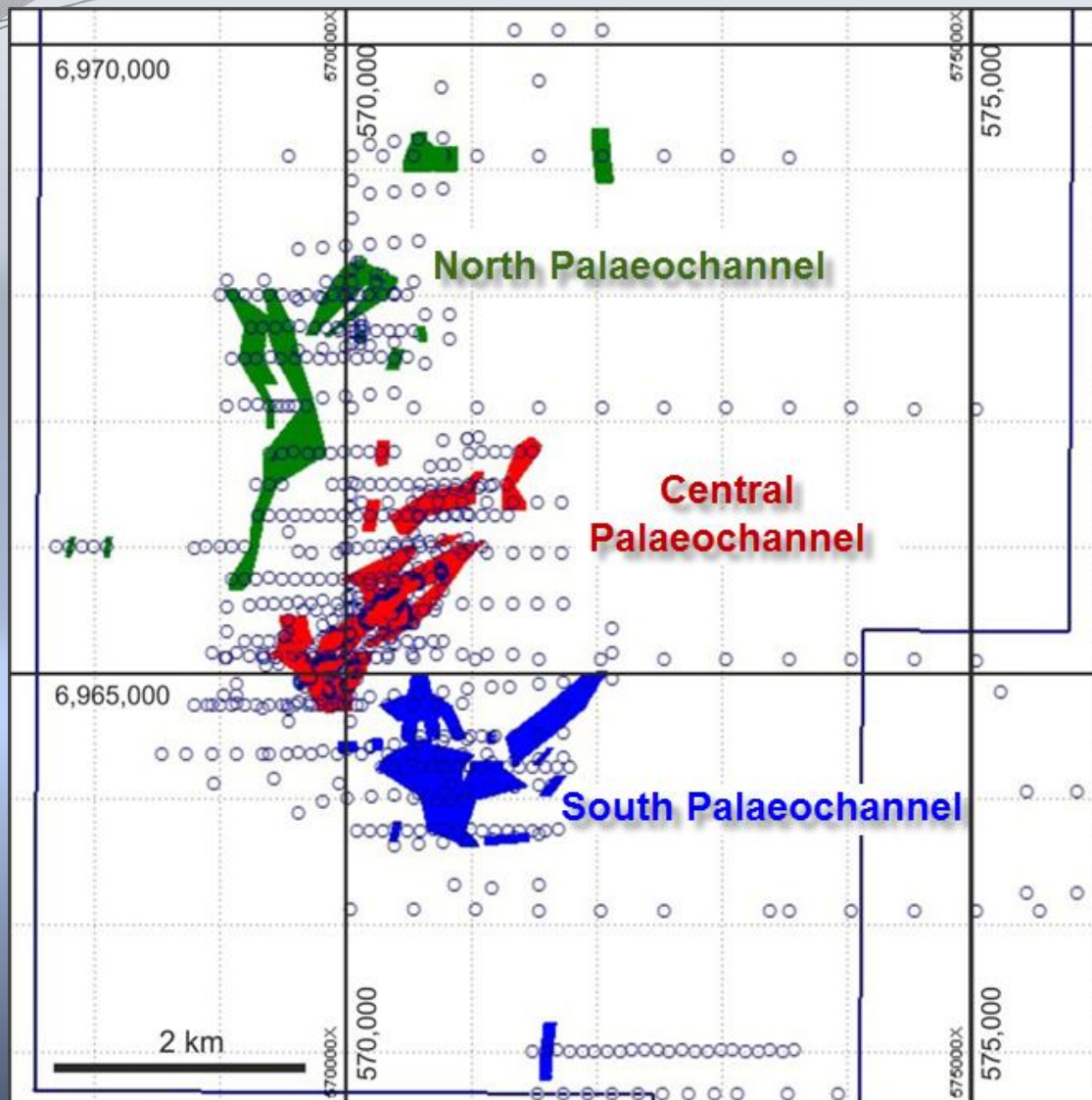
An updated JORC (2012) resource estimate was completed for the Lakeside Deposit in June 2014. The inferred JORC resource estimate totalled 960 tonnes  $U_3O_8$  at an average grade of 350ppm  $eU_3O_8$  (200ppm cut-off).

Tonnes (Million)	Cut-off Grade $U_3O_8$ (ppm)	Average Grade $U_3O_8$ (ppm)	Contained $U_3O_8$ (tonnes)	Contained $U_3O_8$ (Mlb)
2.74	200	350	960	2.12
5.02	100	257	1,289	2.84

Tonnes are metric (2204.62 pounds), figures may not total due to round-off errors.  
Significant figures do not imply precision.



# Lakeside Project – Resource Estimate



- Mineralisation is distributed in three different domains which are interpreted as separate palaeochannels: North, Central & South.
- The Central Palaeochannel holds 75% of the resource at 200ppm  $U_3O_8$  cut-off.
- Energy Metals' total uranium inventory in the central Yilgarn area now stands at 16.1Mlbs  $U_3O_8$  at a cut-off grade of 100ppm  $U_3O_8$ .



# Manyingee

Roll-front-style sandstone-hosted uranium mineralisation in a buried Cretaceous palaeochannel

## Exploration Potential:

- Significant uranium intercepts were encountered in 2012 drilling upstream of Paladin's Manyingee Uranium Deposit

## 2014 drilling program:

- A small rotary mud drilling program (18 holes for a total of 1,790m) was conducted to test the upstream palaeochannel.

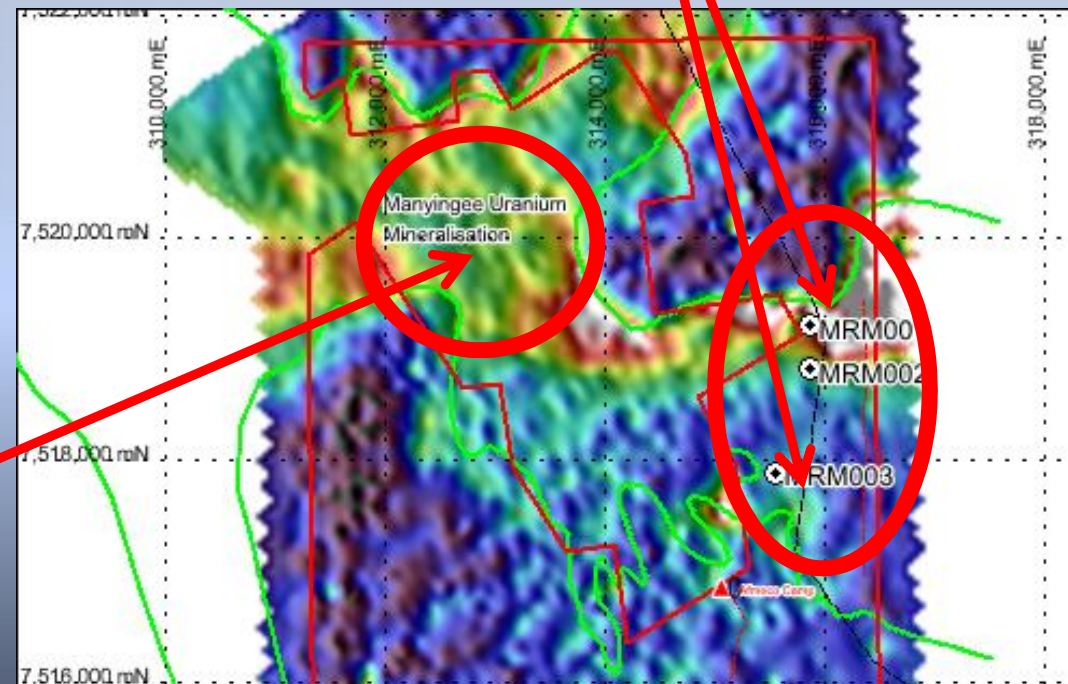
## Drilling results:

- 90% of holes contained significant mineralisation

**Paladin's  
Manyingee Deposit**



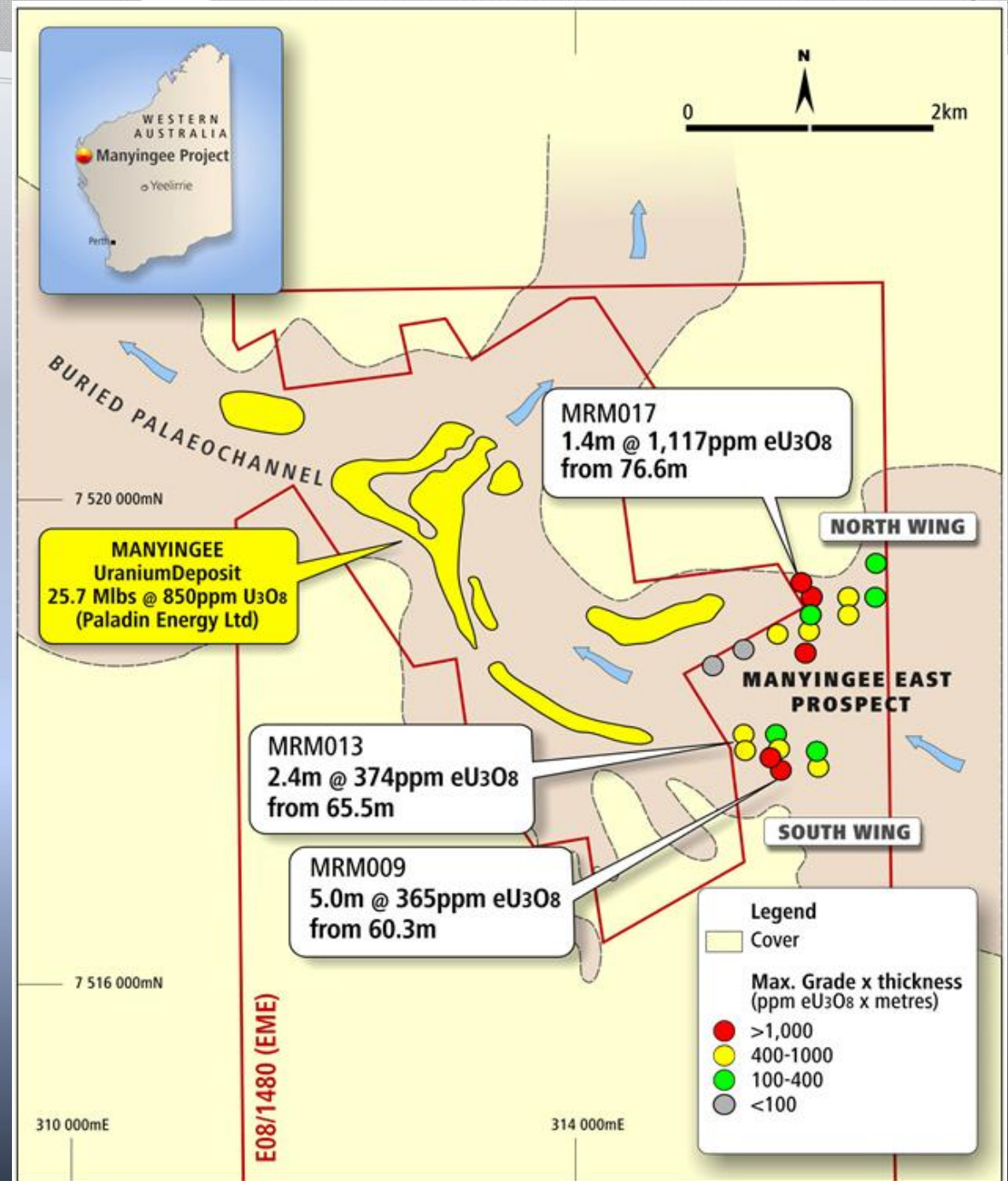
# Manyingee East Prospect





# Manyingee East Prospect: drilling results

- Mineralisation averages 330ppm  $eU_3O_8$  and 0.2 –5 m thick, with a high grade intercept of 1.4m @ 1,117ppm  $eU_3O_8$  in Hole MRM017.
- ‘Wing’ style mineralisation shows good continuity across the northern and southern margins of the Manyingee palaeochannel.
- Considerable scope for further discoveries and expansion of known mineralisation.





# WA Tenement Retention Licence Conversion

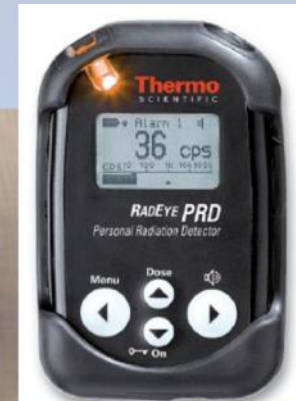
- In 2014, Energy Metals applied to convert the Anketell, Lake Mason, Mopoke Well and Lakeside exploration licences to **Retention Licences** to allow the Company to maintain tenure over the project areas with minimal expenditure until the economic viability of the projects improve.
- To date, three of the four Retention Licences have been granted by the Department of Mines and Petroleum.





# EME is Committed to High Standards of Occupational Health & Safety

- Site Induction & Radiation Safety Training
- Dedicated Company OH&S Officer
- Environmental and Personal Radiation Monitoring
- Risk & Emergency Management
- Safe Transport of Radioactive Materials
- Safe Work Procedures





# Plans for 2015

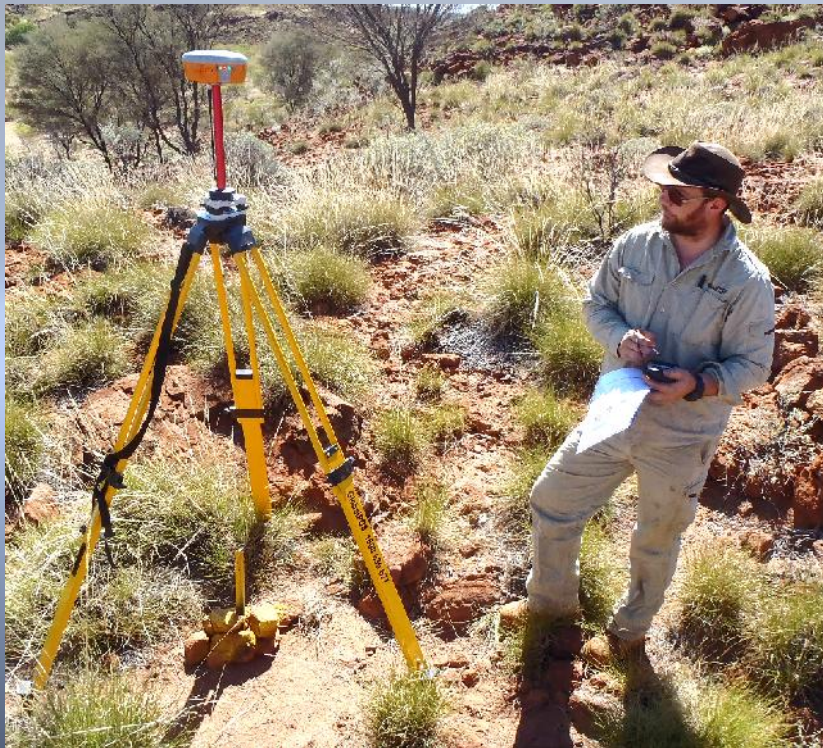


## **Ngalia Regional Projects:**

- **Compilation of Historical Exploration Data including Digitisation of Gamma Logs for three Significant Uranium Deposits last explored in the 1970s.**
- **Exploration Targeting underway based on results of the 2014 Geophysical Survey**
- **Comparative geological study of the different Ngalia Basin uranium prospects to understand the factors that control mineralisation**

## **WA Projects:**

- **Further work planned at Manyingee**







**Thank you**



**ASX:EME**

For more information:  
Phone: +61 8 9322 6904  
Email: [enquiry@energymetals.net](mailto:enquiry@energymetals.net)  
Web: [www.energymetals.net](http://www.energymetals.net)