ENTERPRISE METALS LIMITED

ASX ANNOUNCEMENT **10 September 2012**

AIRBORNE EM IN MURCHISON RIVER VALLEY DEFINES DEEP PALAEOCHANNELS PROSPECTIVE FOR URANIUM

- **Detailed AEM survey over Inland Delta defines +100m deep channels prospective for sand hosted uranium.**
- **Orientation AEM traverses over Murchison River valley (+170km strike extent) also define deep channels.**

SUMMARY

Enterprise Metals Limited ("Enterprise" or "the Company", ASX: "ENT") wishes to announce that detailed and orientation Airborne Electromagnetic (AEM) traverses over the Byro Project area (refer Figure 1) have discovered extensive and deep palaeochannels below the present day delta and river valley. The Company considers these palaeochannels, which are up to 100 metres deep, to be highly prospective for sand hosted uranium mineralisation.

The Company's Chairman, Dr Jingbin Wang, said: *"This is a good example of the Company's exploration strategy at work, which is to generate in-house high quality grass roots exploration targets which have the potential to host Tier 1 type deposits in terms of grade and tonnages. Subject to drill testing, the Byro area has the potential to become another new uranium province."*

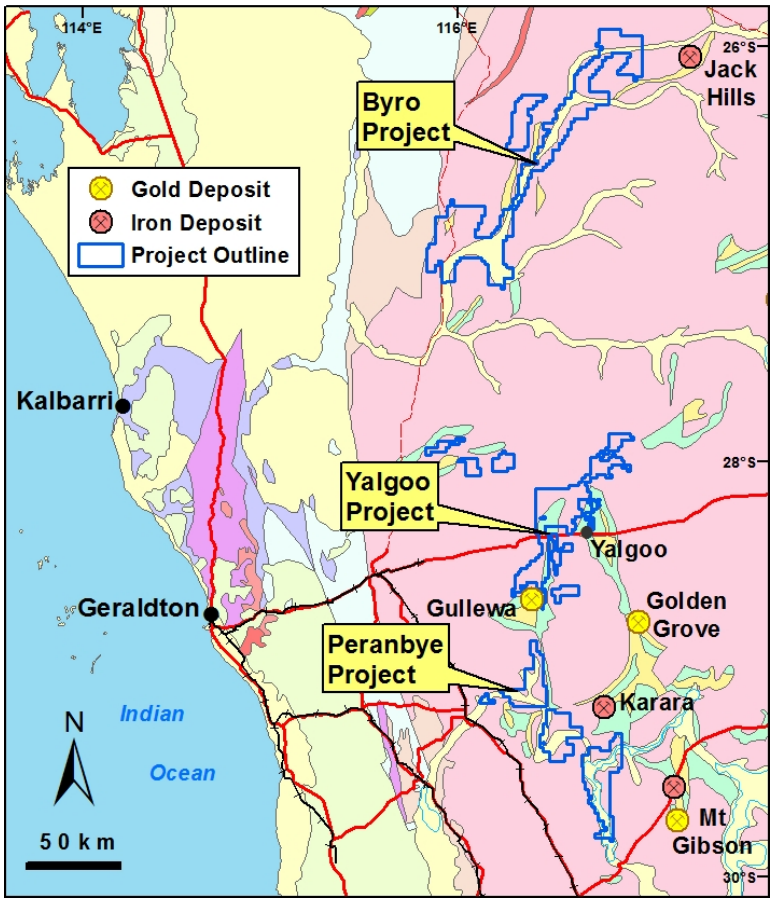

Figure 1: Byro Project: Location Plan.

BACKGROUND

The Byro Project is located approximately 250km NE of Geraldton in Western Australia. The Project comprises 1 granted tenement and 7 applications for a combined area in excess of 2,000km^2. Approximately 80-90% of the tenement area is covered by alluvium, colluvium and river delta.

In 2011, the Company flew a detailed 100m line spaced airborne magnetic/radiometric survey over granted Exploration Licence 59/1617, which identified a large 2.5km x 4.75km uranium anomaly associated with calcrete on the NW margin of Wooleen Lake.

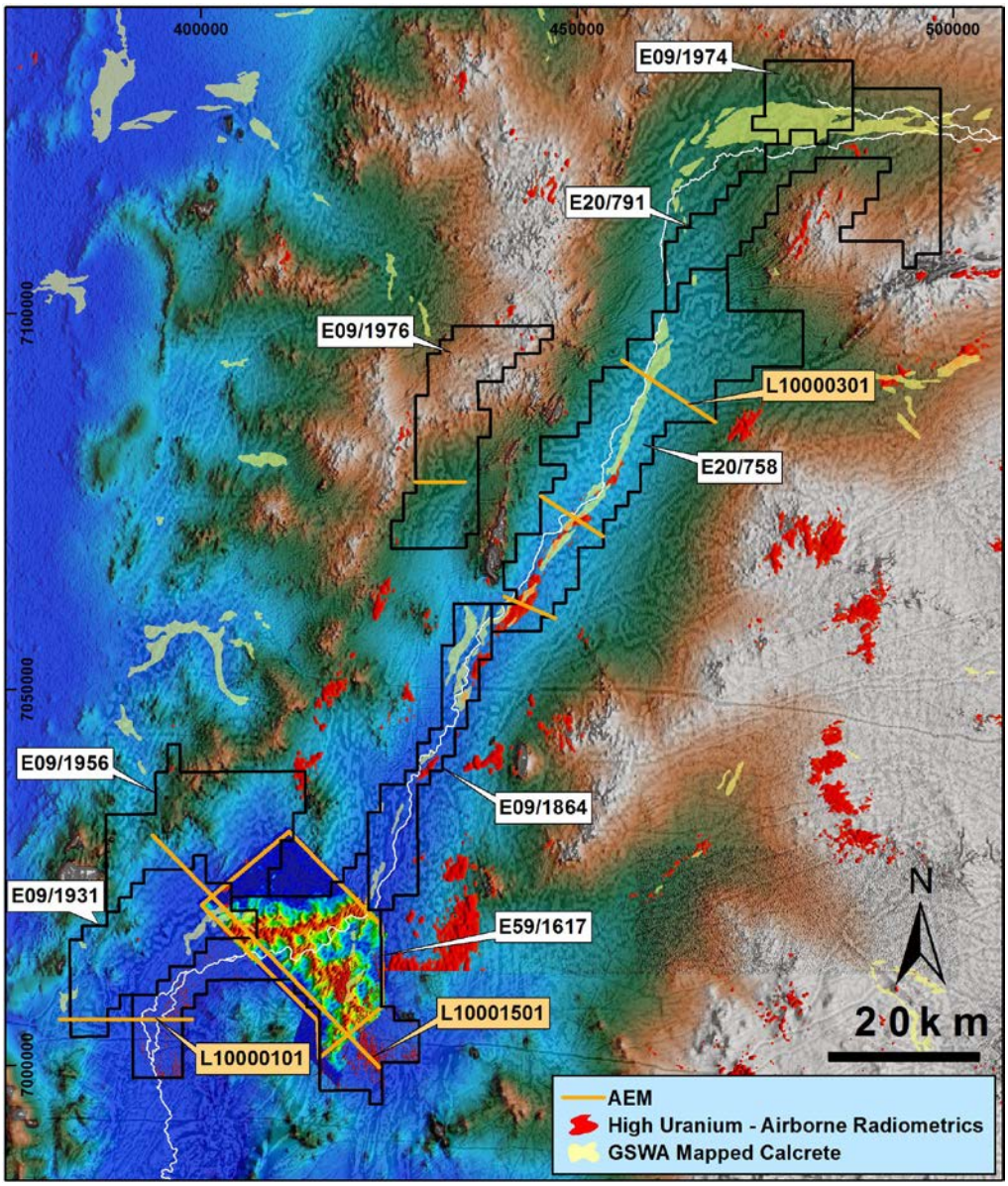

Figure 2: Byro Project: Detailed AEM survey area & Orientation AEM Traverses over Topography (Digital Terrain Model or "DTM")

Exploration Licence 59/1617 contains an unusual confluence between the south flowing Murchison River and the north flowing Roderick River, which has created an inland delta. This delta is thought to have formed as a result of normal faulting (west block up) thereby damming the Murchison and Roderick Rivers for a substantial period of time. Subsequently, the present Murchison River has incised a gorge to the NW of the uplifted block and continued on its way to the coast.

In June/July 2012, Enterprise flew several airborne electromagnetic (AEM) surveys over the Project area to test the Company's theory that the present day drainage system is the surface manifestation of an ancient, buried major river system. A detailed 400m line spaced survey was flown over the Inland Delta and 6 separate orientation traverses were flown over the valley of the Murchison River (Refer Figures 2 and 3).

INLAND DELTA AREA

Processing of the detailed 400m line spaced AEM survey data has produced a conductivity depth model, from which Depth Slices (for example refer Figure 3) and Conductivity Depth Images ("*CDI's")* have been produced. An example of a CDI (Line 1001501) across the Inland Delta is shown in Figure 4.

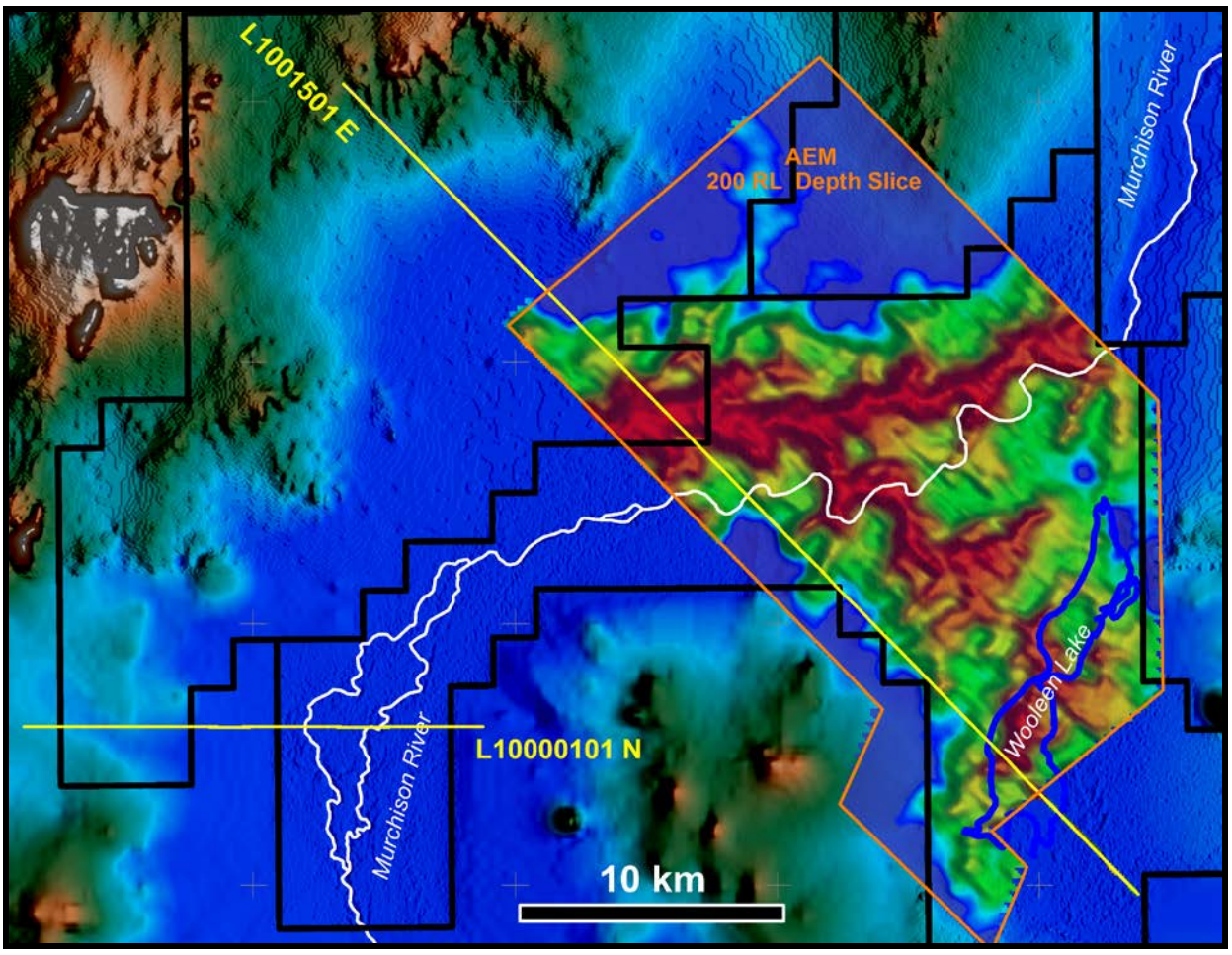

Figure 3: Detailed 400m Line Spaced AEM Survey Image over Inland Delta, ~100m Depth Slice.

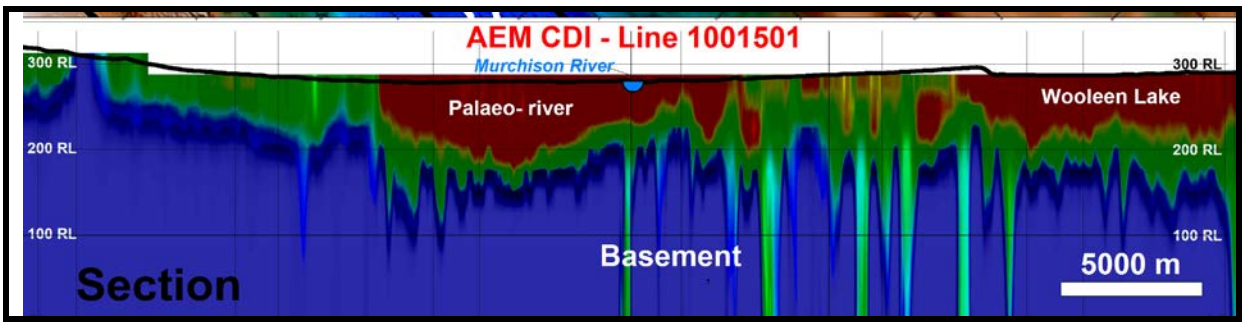

Figure 4: Exploration Licence 59/1617, AEM Conductivity Depth Image (CDI) Line 1001501.

Enterprise has engaged a specialist consultant to develop a "Radio Quiet Management Plan" (RQMP) to allow the Company to operate within the 70km restricted zone of the Square Kilometre Array (SKA) being developed on nearby Boolardy Station. The RQMP was submitted to the Department of Mines and Petroleum (DMP) and CSIRO for feedback and approval, which is expected in the September Quarter. No on-ground exploration can commence until this RQMP is approved. The Byro Radiation Management Plan has been approved by the WA Radiological Council. Field reconnaissance is scheduled to commence after approval of the RQMP and Program of Work ("POW").

Subject to these approvals and a heritage survey, it is the Company's intention to drill test the deep palaeochannels underlying the Inland Delta on granted Exploration Licence 59/1617 for sand hosted uranium mineralisation. Enterprise has been awarded $120,000 by the WA Department of Mines and Petroleum, under the Round 4/2012 Co-Funded Exploration Drilling Program (*Royalties for Regions*) to assist in the cost of drill testing the Company's targets.

MURCHISON RIVER VALLEY

CDI's have also been produced for the regional orientation AEM traverses across the valley of the Murchison River. Refer Figure 2 for traverse locations, and Figures 5 and 6 for CDI's.

The CDI for the traverse on Line 1000101 (Figure 5), which lies downstream to the SW of the Inland Delta, shows the ancient Murchison River to be much broader at this location.

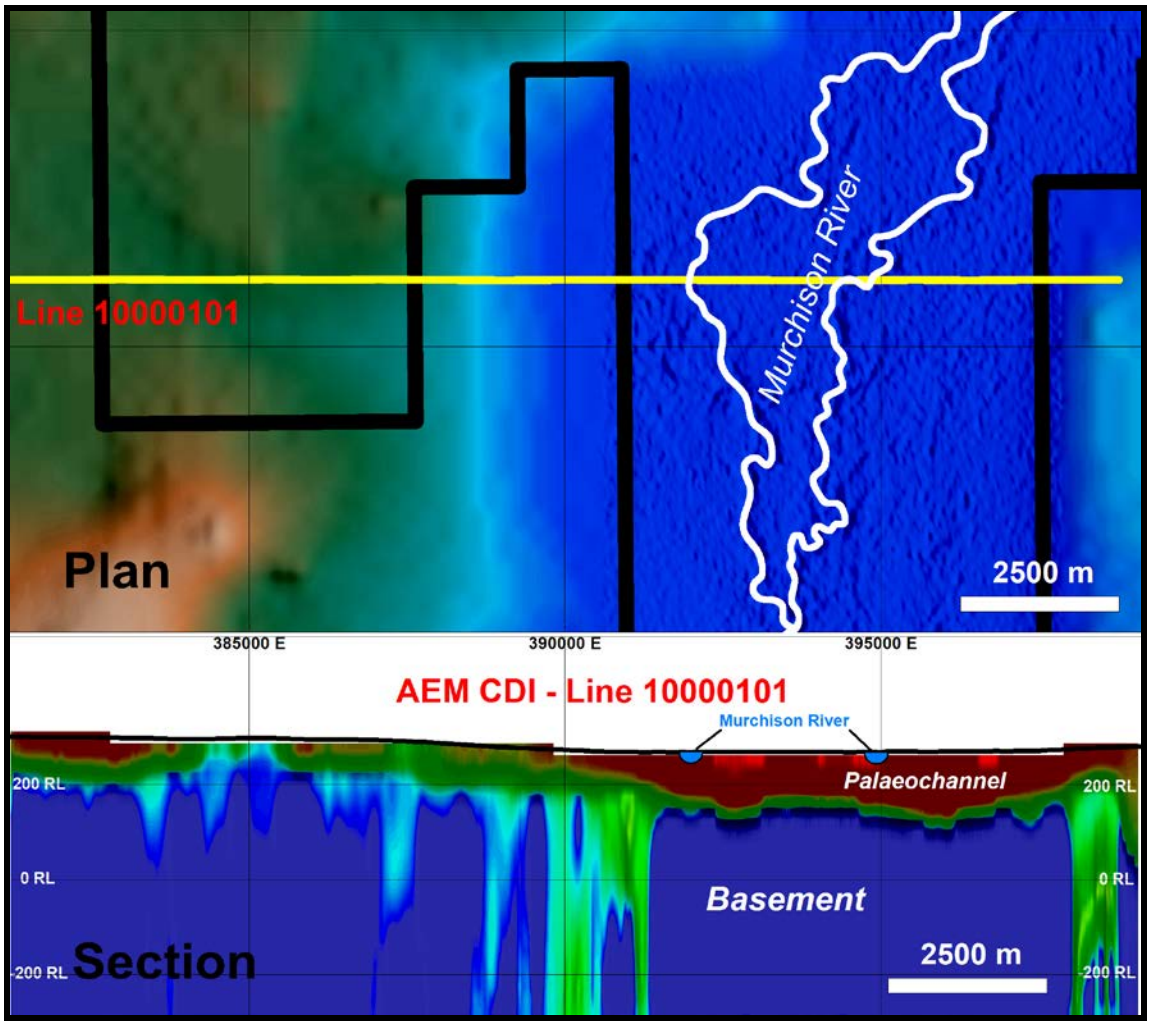

Figure 5: Exploration Licence 59/1617, AEM Conductivity Depth Image (CDI) Line 10000101.

The orientation AEM traverses across the valley of the Murchison River north of the Inland Delta show the ancient Murchison River to be much broader and shallower. However, mapping by the GSWA shows extensive areas of calcrete development co-incident with airborne radiometric uranium anomalism. (Refer Figures 2 & 6). The Company believes that this area is prospective for both calcrete hosted and sand hosted uranium mineralisation. These targets will be drill tested upon the grant of the tenement applications and other necessary approvals.

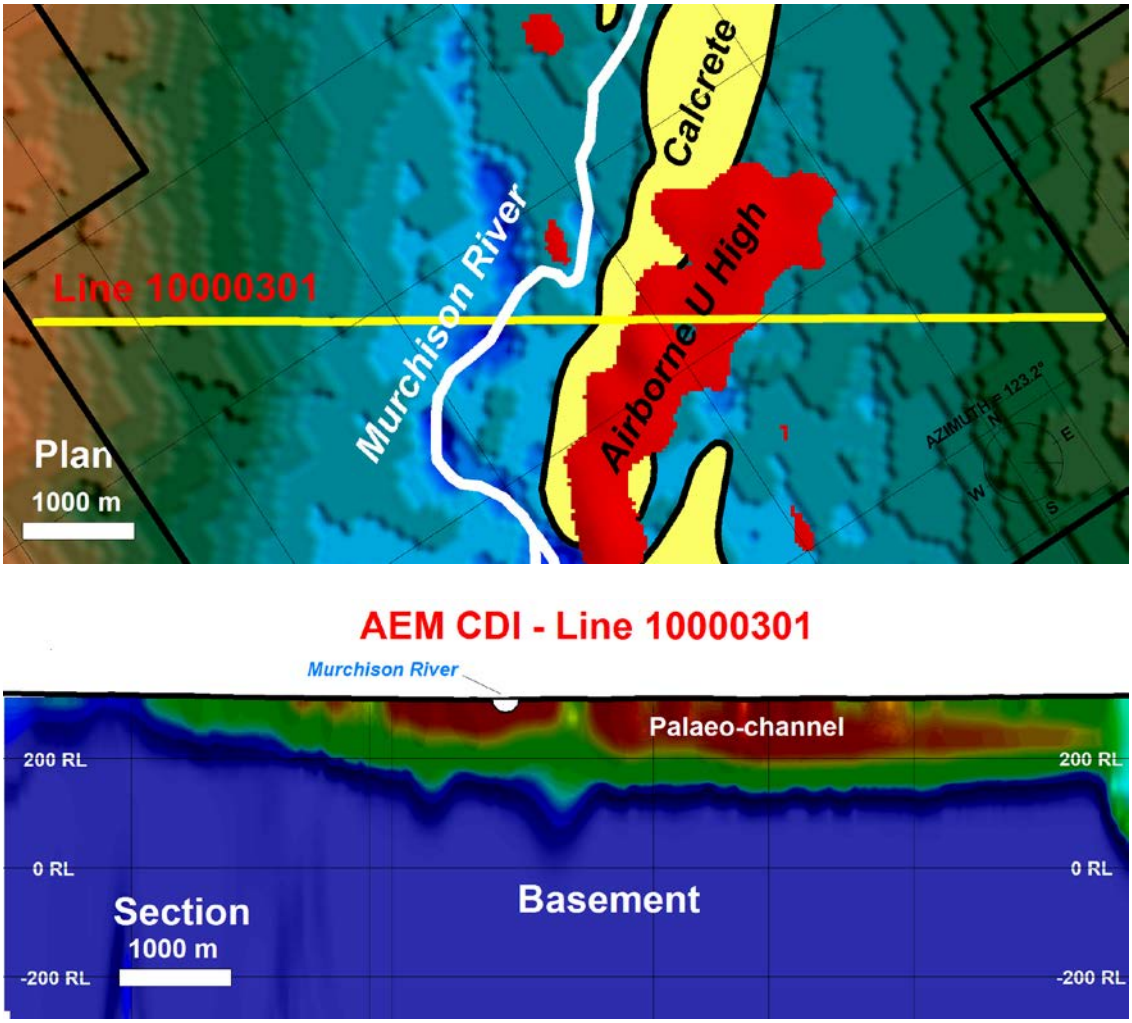

Figure 6: Exploration Licence 20/758, AEM Conductivity Depth Image (CDI) Line 10000301.

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Competent Persons statement
The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Trevor Saul, who is an employee of the Company. Mr Saul is a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2004 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Saul consents to the inclusion in this report of the matters based on information in the form and context in which it appears.