



## **MINERALOGY CONFIRMED AT MARENICA URANIUM PROJECT**

International uranium company West Australian Metals Limited (ASX: **WME**) is pleased to advise that it has received encouraging preliminary results from mineralogical test work on ore samples from its 80%-owned **Marenica Uranium Project** in Namibia.

International consultancy group SRK Consulting Pty Ltd collected a full suite of samples for mineralogy and verification process test work whilst on site in May. Three styles of mineralization have been delineated on site by SRK, namely:

- a primary source;
- an oxidized source in bedrock (secondary); and
- calcrete-hosted uranium mineralization.

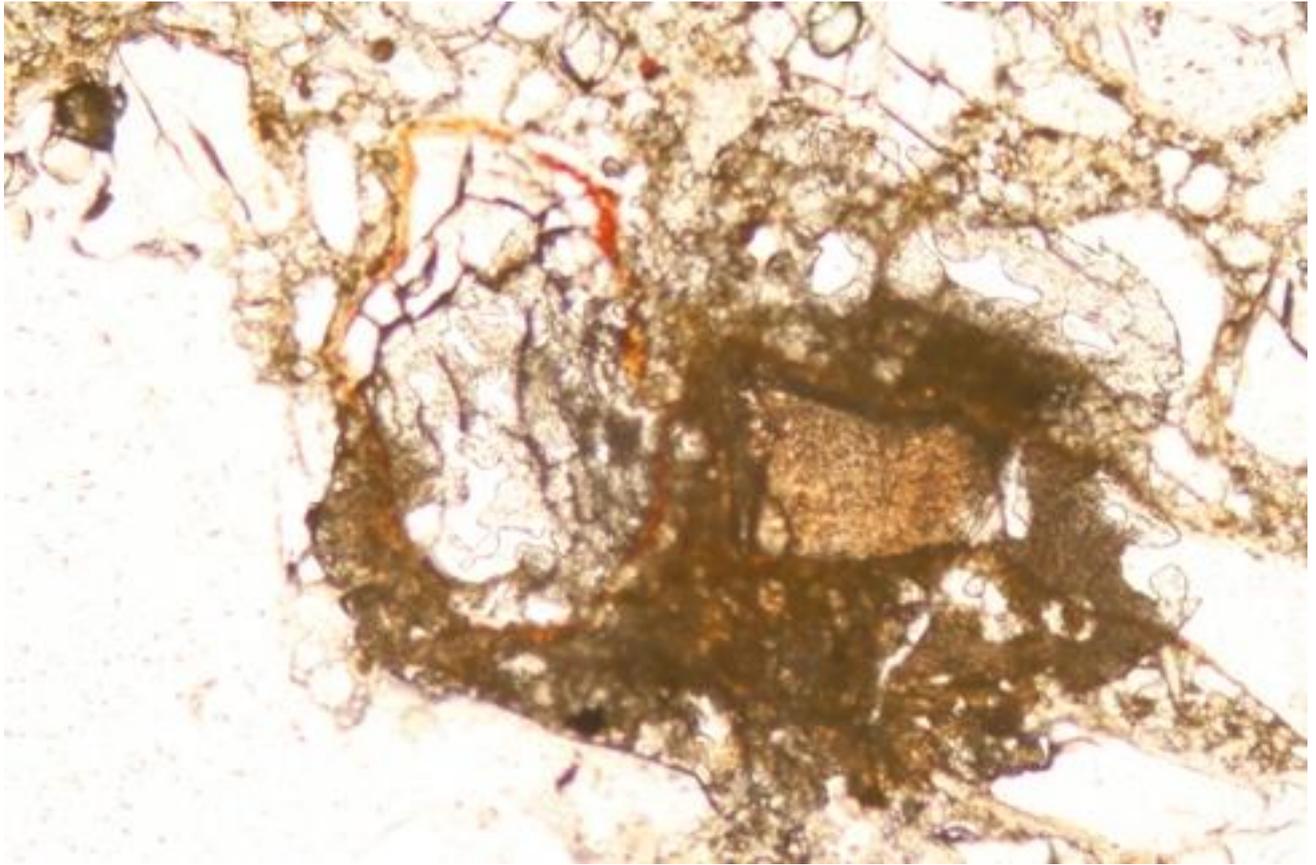
To date, 30 sections of Marenica ore have been examined – two primary, 19 secondary and surface rocks and nine calcrete. In the calcrete and secondary ores the major uranium phase is carnotite (in the order of 85% or more). Based on this analysis, SRK confirm that the material described in the previously produced AMMTEC report (2008) is not representative of the mineralogy observed in samples collected on site.

Based on the mineralogy of the ores collected to date and comparisons with other uranium ores from Africa, SRK believes that WME **should be able to achieve better than 75% extraction** from supergene ore types.

### **Calcrete Mineralisation**

Uranium occurs in calcrete in-filling fractures and as fine grained coatings on granite pebble fragments and in the surface gypcrete. The mineralisation occurs with a host of gangue minerals including calcite, Sr-Mg-calcite, celestine, gypsum, halite, mirabilite, etc.

Most rock fragments are angular implying little lateral movement, suggesting that they occur close to the source. The major mineral present is carnotite ( $K_2(UO_2)_2[VO_4] \cdot 3H_2O$ ). In addition to this there are minor amounts of urancalcarite ( $Ca(UO_2)_3[(OH)_6(CO_3)] \cdot 3H_2O$ ) and rutherfordine ( $UO_2(CO_3)$ ).



#### Micrograph

*This photomicrograph is from core MARD031 at 6.52m and shows a carnotite nugget and veinlet in oxide weathered granite matrix. Field of view is 5mm and the image was taken in plane polarised transmitted light.*

#### **Secondary Mineralisation**

Uranium occurs in veinlets and joint surfaces and along fractures with calcite, clays, gypsum, hematite, and siderite. Uranium also occurs as uranium (VI) minerals as components of quartz veins in granite matrix that is characterized by intense hematite-siderite alteration and mottled clay alteration of feldspars.

Uranium mineralogy is dominated again by carnotite ( $K_2(UO_2)_2[VO_4] \cdot 3H_2O$ ) together with (minor) fourmarierite ( $PbU_4O_{13} \cdot 4H_2O$ ) and metatyuyamunite ( $Ca(UO_2)_2[VO_4]_2 \cdot 3-5H_2O$ ). An unknown U-Mo-oxide phase has also been identified. In the granite fragments uranium is present as uraninite ( $UO_2$ ) and as a trace element in xenotime, zircon and monazite.

#### **Primary Mineralisation**

The two samples examined to date from the Phillipus and eastern zones have confirmed the presence of primary uranium (IV) mineralization in the granites of the Marenica Licence area. To date the uranium minerals identified are uraninite ( $UO_2$ ) and euxenite ( $(Y,Ca,Ce,U,Th)(Nb,Ta,Ti)_2O_6$ ) along with minor amounts of uranium associated with xenotime, zircon and monazite

## Notes

Information in this report that relates **to exploration results and laboratory testwork currently being collected at Cardiff University, Wales** and reflects information compiled by *Eur.Geol.* Robert Bowen PhD, C.Chem., C.Geol., Principal Geochemist of SRK Consulting (UK) Limited who has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is reporting on as a Competent Person as defined in the 2004 Edition of “The Australian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves.” Dr Bowen consents to the inclusion in this report of the matters based on the information compiled by him, in the form and context in which it appears.

