



Uranium Exploration Australia Limited

ABN 65 112 714 397

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The Manager
Company Announcements Office
Australian Stock Exchange
20 Bridge Street
SYDNEY NSW 2000

ASX ANNOUNCEMENT

CRYSTAL CREEK DRILLING UPDATE

- **Drilling program completed at Crystal Creek, NT**
- **Hand-held spectrometer readings from drill chips indicate the presence of potentially mineralised zones associated with ironstone at Anomaly B**

The Directors of Uranium Exploration Australia Limited ('UXA') are pleased to provide an update on its Crystal Creek exploration project in the Northern Territory.

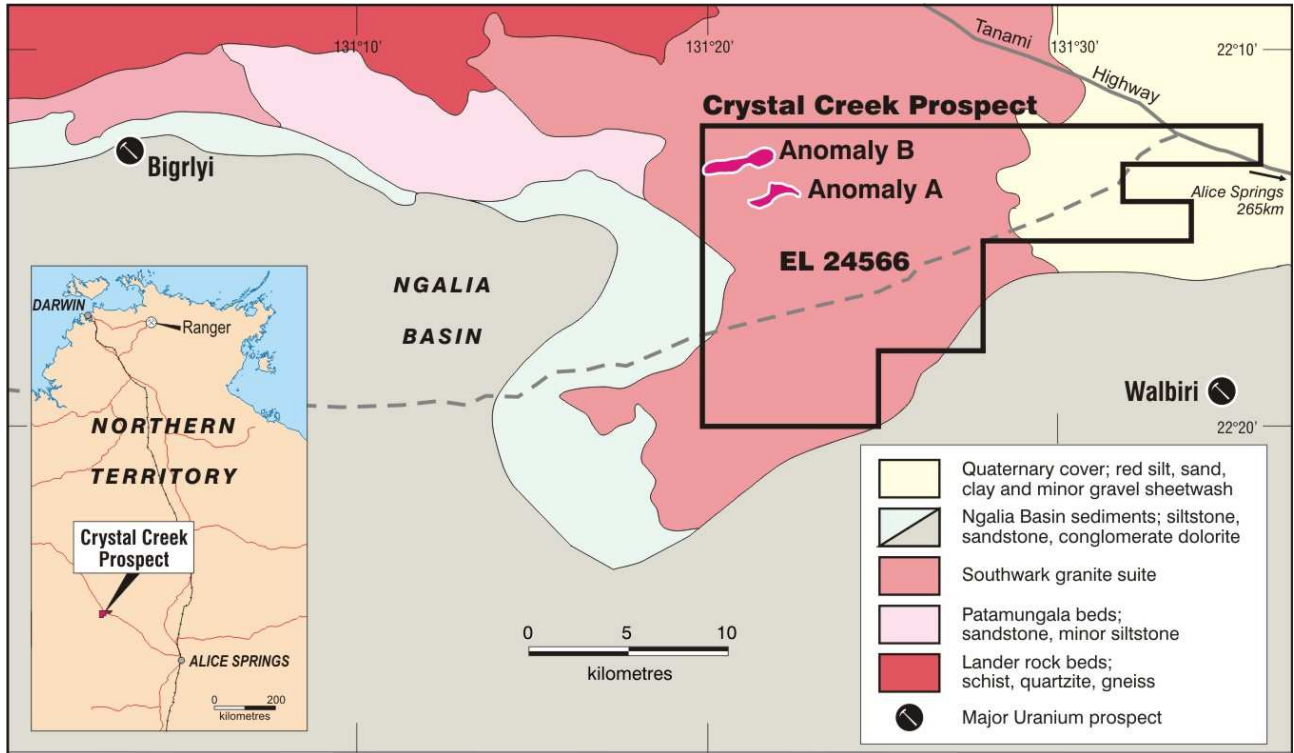
Crystal Creek Drilling

The planned RC percussion drilling program at the Crystal Creek uranium prospect has been completed. Forty holes were drilled for 2,573m. Most of the holes were inclined to intersect the steeply dipping uranium mineralised structure at Anomaly B, and varied in depth from 36m to 132m. The drilling program tested the most anomalous portions of the 3,000m long outcrop of the mineralisation, and additional targets identified by the airborne geophysical survey and soil geochemical surveys previously completed (ASX announcement 27 October 2009).

Geochemical samples have been taken at one metre intervals and these have been shipped to a laboratory in Adelaide for analyses. Results of geochemical sampling are expected in late December. Meanwhile a borehole logging truck, from Geoscience Associates Australia Pty Ltd, has been mobilised and will conduct gamma and PFN logging on the drill holes.

Hand held spectrometer readings taken on the bags of percussion drill chips indicate potentially anomalous and mineralised zones, particularly at the west end of the 3,000m long structure at Anomaly B, coincident with zones of ironstone stringers. Drill testing of magnetic Anomalies C and D show the presence of magnetite in either altered granite or dolerite, without the presence of ironstone.

Figure 1. Crystal Creek location map



The Crystal Creek Prospect is located on Exploration Licence (EL) 24566, Ngalia Thrust, approximately 320km northwest of Alice Springs, and near to Energy Metals' Bigrlyi uranium deposit.

In July 2009, the Company announced the discovery of a zone of uranium mineralisation which crops out intermittently over a strike distance in excess of 3,000m. Early field sampling with a portable XRF machine indicated excellent U_3O_8 point concentrations of up to 4,120 ppm (ASX announcement 16th July 2009) and this range of values was confirmed by laboratory XRF analyses on rock chip samples (ASX announcement 27th August 2009).

For further information, contact.

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Technical Information in this report is based on information compiled by Mr Simon Powell who is employed by Uranium Exploration Australia Limited and who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Powell has sufficient exploration 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ("JORC 2004"). Mr Powell consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.

About UXA

Uranium Exploration Australia Limited was formed to explore for and develop uranium and associated base and precious metal deposits, focusing principally on its ground holdings in the world class uranium provinces in South Australia and Northern Territory. UXA has an exploration joint venture with RIL Australia Pty Ltd, a subsidiary of Reliance Industries Limited, the largest private sector company in India.

In July 2009 UXA announced the discovery of uranium mineralisation in a 3,000m long structure within granite at Crystal Creek, on its Ngalia Thrust exploration licence in the Northern Territory. UXA is vigorously following up this discovery with field work.

In October 2009 UXA announced the completion of the purchase of a borehole logging business, Geoscience Associates (Australia) Pty Ltd (GAA). GAA is continuing to operate as a separate business and provide cash flow for UXA's exploration activities. GAA has the sole distribution rights in Australia to the Prompt Fission Neutron device, a specialised tool for directly measuring the content of uranium in boreholes, thereby overcoming the problem of disequilibrium. GAA provides logging services to the coal and uranium industries (both gamma and PFN logging) throughout Australia.

More information on UXA can be found on our website at www.uxa.com.au