

Friday 12<sup>th</sup> August 2011

Australian Securities Exchange  
Company Announcements Platform  
ASX Code: USA

## YELLOWCAKE PRODUCT

**Blackbush deposit, Mullaquana uranium project  
Eyre Peninsula, South Australia**

**UraniumSA advises that a uranium yellowcake product has been produced in the laboratory from mineralisation taken from the Blackbush deposit within the Company's wholly owned Mullaquana uranium project, located south of Whyalla on South Australia's Eyre Peninsula.**

A bulk core sample from the Blackbush deposit was leached using an acidified seawater solution and the dissolved uranium was then recovered from the leach solution using two different resins. The two resins were then separately stripped of uranium and a yellowcake product precipitated.

**The resulting uranium yellowcake product is high grade containing 85% uranium metal.** It is within general commercial specification and has minimal off-target contamination (results attached as Table 1).

As previously reported, UraniumSA has identified a number of resins which have demonstrated a capacity to extract uranium from acidified seawater solutions at potentially commercial loading rates (ASX 21<sup>st</sup> March and 1<sup>st</sup> June 2011). In the presently reported work, two resins of the six presently being evaluated were fast track tested to establish elution and precipitation regimes for more comprehensive testwork.

These results comprise an initial proof-of-concept for the:

- extraction of uranium from typical mineralisation into acidified saline solution,
- extraction of the dissolved uranium from acidified hyper saline solution to resins,
- stripping of uranium from resins; and
- the precipitation of a uranium yellowcake product.

During this test work, there was no significant loading of the resins by off-target elements. The uranium was stripped from the resins using conventional reagents and methods and a peroxide product precipitated.

The metallurgical process tested and reported herein is a bench scale replication of the process being developed for use at the Blackbush deposit.

Colum leach trials are presently in progress and the leach liquors from those trials and leach liquors from bottle roll leaches will be used to replicate these results.

The results of the complete metallurgical test program will be the basis for the design and construction of the proposed In-Situ Recovery Field Trial at Blackbush (ASX 11<sup>th</sup> August 2011)

**Table 1**  
**Chemical analysis of yellowcake precipitate**

	resin 1	resin 2	indicative commercial specification
Element	%	%	%
<b>U</b>	<b>84.0</b>	<b>83.0</b>	<b>65.0</b>
Ca	<0.05	<0.04	3.00
Fe	0.23	<0.02	1.00
Mg	<0.02	<0.02	3.00
Mo	<0.002	<0.002	0.10
Na	0.04	0.09	1.00
Na+K	0.09	0.14	1.00
P	0.05	0.04	0.20
PO4	0.14	0.13	1.00
S	0.15	<0.02	1.00
SiO2	0.06	0.33	0.50
Th	0.01	<0.002	0.50
Ti	0.02	<0.002	0.05
V	0.005	<0.002	0.10
Zr	<0.002	<0.002	0.10
F	0.16	0.03	0.10
Cl	0.35	0.50	0.10

**NOTE.** These are the results from assay of bench scale test products and do not necessarily represent a final commercial product. Material from the proposed field trial will be used to characterise the potential commercial product including uranium isotopes. The general specification for a commercial yellowcake product is given by ASTM C996.

## Contacts

### UraniumSA Limited

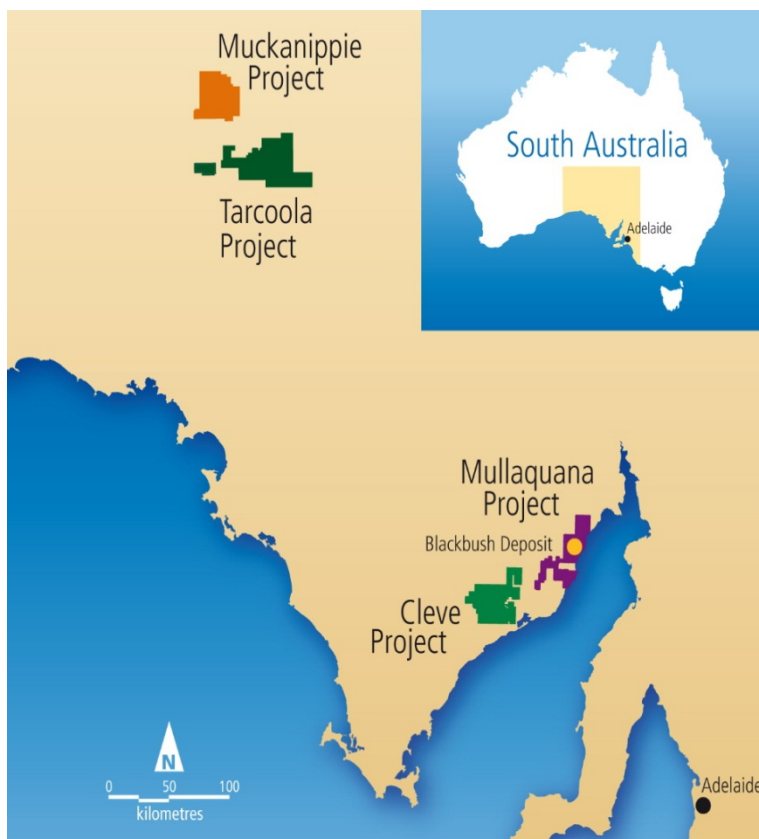
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## About UraniumSA Limited



UraniumSA is an Adelaide based uranium only explorer specialising in sediment hosted styles of uranium mineralisation within a substantial portfolio of properties in South Australia's Gawler Craton.

The Company has discovered sediment hosted uranium mineralisation within its Mullaquana Project, 20km south of the industrial city of Whyalla on the eastern Eyre Peninsula in South Australia.

The inventory of sediment-hosted uranium mineralisation in the Blackbush and Plumbush deposits within the Mullaquana project is some 19,000 tonnes of  $U_3O_8$  (equivalent to approximately 42 million pounds). The Blackbush deposit is being advanced towards the commencement of a field trial for an in-situ recovery operation with a production objective of late 2012 to early 2013.

Continued drilling of the Plumbush deposit will grow the resource base and updated estimates will be released during 2011.

The Company has recently discovered significant thickness and grades of uranium mineralisation in the granite basement which underlies the sediment-hosted mineralisation at Blackbush.

Through its own tenure and by Joint Venture the Company has exploration control over what it considers the most prospective portions of the Pirie Basin.



Russel Bluck

Executive Chairman  
UraniumSA Limited

*The exploration results and mineral resources reported herein, insofar as they relate to mineralisation, are based on information compiled by Mr Russel Bluck, Managing Director, UraniumSA Limited who is a Member of the Australian Institute of Geoscientists and has sufficient experience relevant to the style of mineralisation and type of deposits being considered, and to the activity which is reported to qualify as a Competent Person as defined by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2004 Edition). Mr. Bluck consents to the inclusion in the report of matters based on his information in the form and context in which it appears. It should be noted that the abovementioned exploration results are preliminary.*