

Thursday, 27th October 2011

AUSTRALIAN SECURITIES EXCHANGE
COMPANY ANNOUNCEMENTS PLATFORM
ASX CODE USA

ACTIVITIES REPORT 3 MONTHS ENDED 30th SEPTEMBER 2011

OVERVIEW

UraniumSA has an inventory of uranium mineralisation in JORC Inferred Resources of 42 million pounds (Mlb) of U₃O₈ in its Blackbush and Plumbush deposits in the Samphire uranium project (formerly known as Mullaquana) located south of Whyalla on the Eyre Peninsula in South Australia.

The Company is focussed on advancing the Blackbush deposit towards production, which is presently scheduled for 2013 and which will be UraniumSA's first output. Work to progress the project through a field trial of the in-situ recovery mining process, is well advanced. The field trial will provide information required to take the project to a decision to mine.

- **Samphire Uranium Pty Ltd.** The Blackbush and Plumbush uranium deposits are located within Exploration Licence 3652 which is owned by Samphire Uranium Pty Ltd, a wholly owned subsidiary of UraniumSA Limited. Samphire Uranium Pty Ltd is the company responsible for the development of the Blackbush and other uranium deposits in EL 3652, and the project has been re-branded the Samphire project.

Samphire is a low growing, succulent, salt tolerant plant which is common in challenging saline environments such as coastal marshes and salt flats which support few other plant species. Samphire is common along much of the South Australian coastline.

- **Retention Lease Application.** On Thursday 11th August 2011, UraniumSA advised through the ASX that the Company had lodged with the South Australian Department of Primary Industries and Resources (PIRSA), a proposal for a 225 hectare Retention Lease on Mineral Claim 4280 within Exploration Licence 3652. The Blackbush deposit is contained within the boundaries detailed in the application.

The proposal was assessed by the State Government and made available for a period of public exhibition, with the 13th October 2011 being the closing date for public comment. PIRSA has provided a two week time extension to enable the completion of late submissions.

The purpose of the Retention Lease is to enable UraniumSA to undertake an in-situ recovery Field Trial (ISR-FT) to confirm the results of its metallurgical test work and establish design parameters for future uranium yellowcake production.

- **Yellowcake precipitation.** On Friday 12th August 2011, the Company was able to announce through the ASX that a uranium yellowcake product had been produced in the laboratory from mineralisation taken from the Blackbush deposit.

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

The uranium yellowcake product obtained was high grade, containing 83% uranium metal compared to a standard market specification of 65%.

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

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

➤ **Column Leach Results.** On Monday 29th August 2011, the results of the first of two scheduled column leach tests being conducted at the Australian Nuclear Science and Technology Organisation (ANSTO) were announced through the ASX. The results were for a bulk sample of mineralised drill core from the Blackbush deposit, with a single pass flow through of a sea water-based acidified lixiviant solution. The initial results indicated that:

- i. Uranium extraction is excellent with 83% uranium recovered after 18 days
- ii. Uranium tenors in the leach liquor peaked at ~800ppm uranium
- iii. The mineralisation is amenable to leaching using acidified seawater
- iv. The leached liquor contained low impurity levels.

➤ **Financial Models.** On Monday 19th September 2011, the Company released indicative financial modelling for the Blackbush deposit, to the ASX. The models were constructed using information from the technical work which the Company is conducting on the Blackbush deposit, on data from other in-situ recovery operations in South Australia, and using indicative estimates for the supply of goods and services as provided by third parties.

The financial models show that an ISR operation at Blackbush has the potential to deliver robust returns on invested capital. The highlights of the modelling are:

Production model	400tpa (tonnes per annum)	600tpa (tonnes per annum)	800tpa (tonnes per annum)
Project Capital AU\$	\$ 71.4M	\$ 75.8M	\$ 80.1M
Operating Cost AU\$/lb U ₃ O ₈	\$ 30.30	\$ 25.90	\$ 23.90
Payback period, years	4.9	3.5	2.9
Net Present Value @ 8% discount rate	\$52.9M	\$134.7M	\$212.6M
Internal Rate of Return	22%	39%	52%

These financial models are a management tool and are not a statement of financial viability.

ACTIVITIES

EXPLORATION

No exploration field work for sediment hosted uranium was carried out in the Samphire uranium project area during the reporting period. Office based assessment and analysis of data continued.

The investigation of the geology and significance of the uranium mineralisation in granite basement was continuing.

Exploration is scheduled to re-commence in the Tarcoola project in South Australia during the next reporting period.

ASX REPORTING

The Company made three releases on technical issues to the ASX during the reporting period and these are discussed above under "Overview". Other releases were of a routine nature.

SAMPHIRE PROJECT (PREVIOUSLY MULLAQUANA)

LAND PURCHASE

The contract for the purchase of the land covering the Blackbush deposit was settled 12th August 2011.

BLACKBUSH DEPOSIT

The focus of work is on the progression through field trials towards the Company's maiden production targeted for 2013.

- Resources - drilling of pre-collars for PFN logging was carried out.
- Regulatory Process – an application for a Retention Lease was lodged, discussed above in "Overview".
- Hydrogeology – the ground water circulation trial commenced 29th September 2011 and was proceeding at the end of the reporting period.
- Metallurgy – the results received during the reporting period are discussed above. ANSTO was continuing work on a second column leach trial at the end of the period.

PLUMBUSH DEPOSIT

No significant work was completed on the Plumbush deposit during the reporting period.

BASEMENT MINERALISATION

A single rotary mud hole was drilled into granite basement to acquire geological information.

JOINT VENTURES

No field work was carried out in the area of the SRZ-JV (Stellar Resources Limited, ASX code SRZ), an area which adjoins Samphire.

The Exploration Licence for the AAO JV (Adept Solutions Limited, ASX code AAO) is in the process of renewal and the processes for access to the ground for drilling are underway.

OTHER SOUTH AUSTRALIAN PROJECTS

CLEVE PROJECT, EASTERN EYRE PENINSULA (SA)

Our Joint Venture partner, Archer Exploration Limited (ASX code AXE), has continued its exploration work for commodities other than uranium. UraniumSA did not undertake any uranium exploration during the period.

TARCOOLA PROJECT, KINGOONYA PALAEODRAINAGE SYSTEM (SA)

The mobilisation of staff and equipment to the Tarcoola operations base commenced late in September 2011. First holes are scheduled for early October 2011 following formal receipt of the clearance report from the Far West Coast Native Title Claim Group.

CORPORATE

The Board continues to maintain a focus on advancing the Blackbush deposit towards a field trial.

FORWARD WORK PROGRAM TO END DECEMBER 2011

SAMPHIRE PROJECT (FORMERLY MULLAQUANA)

Blackbush deposit. The operation of the groundwater circulation trial is expected to be completed. ANSTO will commence the screening of resins to select candidates for use in the proposed field trial. Work on the site and engineering for the proposed field trial is continuing.

Plumbush deposit. The exploration plant and equipment has moved to the Tarcoola project and will commence work on extensions into the SRZ JV when it returns to the Samphire project.

Bedrock uranium mineralisation. Geophysical modelling is continuing.

Joint Ventures. The Exploration Licence for the AAO JV is in the process of renewal and the processes for access to the ground for drilling are underway. Further drilling is being scheduled for the SRZ-JV.

OTHER SOUTH AUSTRALIAN PROJECTS

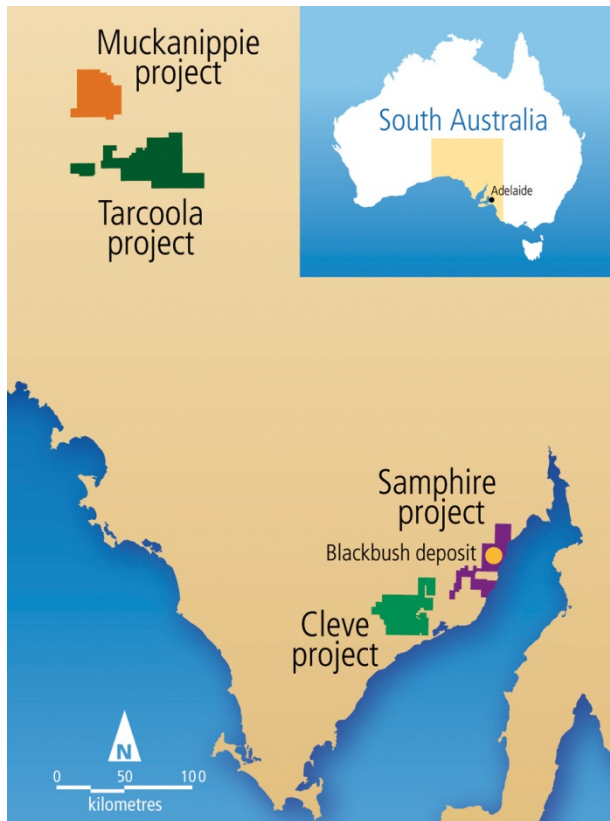
Cleve project, eastern Eyre Peninsula (SA). Review of the existing uranium exploration data has commenced. Our Joint Venture partner, Archer Exploration Limited (ASX code AXE), will be continuing its work on the ground.

Tarcoola project, Kingoonya Palaeodrainage System (SA). The Tarcoola field base has been recommissioned and drilling will recommenced in October 2011 and continue to the end of the end of year break.

CORPORATE

The focus of the Board will remain on advancing the Blackbush deposit towards a field trial, and on growing the asset base of uranium mineralisation under relevant JORC classification in the Samphire project. Elsewhere, the exploration of the other properties in the UraniumSA portfolio will recommence.

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 Samphire project (formerly Mullaquana), 20km south of the industrial city of Whyalla on the eastern Eyre Peninsula in South Australia.

The inventory of uranium mineralisation within the Samphire project in the Blackbush and Plumbush deposits in JORC compliant Inferred Resource estimates 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 2013.

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
Managing Director
UraniumSA Limited

The exploration results mineral resources reported herein, insofar as they relate to mineralisation, are based on information compiled by Mr Russel Bluck an employee of UraniumSA Limited and Member of the Australian Institute of Geoscientists with 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.