

29 October 2009

**AUSTRALIAN SECURITIES EXCHANGE
COMPANY ANNOUNCEMENTS PLATFORM
ASX CODE USA**

ACTIVITIES REPORT 3 MONTHS ENDED 30th September 2009

UraniumSA is now engaged in re-positioning itself from a pure exploration company to one which is increasing the size of its base of inferred resources of mineralisation and continuing to advance towards the production of yellowcake.

To underpin this transition from exploration towards production, the Company recently completed a very well supported share placement which introduced a range of institutional investors to the share register. This fundamental change in the structure of our register will be important as we increase the value of our assets and advance them towards production.

We are continuing our exploration of the Pirie Basin elsewhere in the Mullaquana Project. Work over extensions of the Pirie Basin in the Joint Ventures which we have to the south of Mullaquana with Stellar Resources Limited and Australasia Gold Limited commenced some time ago with an AEM survey, and this will be followed up by drilling once we have worked through Heritage issues with the traditional custodians.

The permitting and licensing process involved in advancing a uranium resource to production is complex and involves both State and Federal agencies. To manage and minimise delays in this process as the project advances, we have commenced work on many of the matters which require documentation for permitting and have let contracts for some key components. We are engaged with Native Title traditional custodians and claimants, and have commenced work on environmental baseline surveys. In addition, there are firm plans in place for improved definition and characterisation of the uranium mineralisation in the Blackbush Prospect to de-risk the planning and decision making process.

Through to the end of 2009 UraniumSA will;

1. Commence detailed work on the Blackbush Prospect to improve our knowledge of the technical characteristics of the mineralisation. The objective is to commence the permitting process for a proof-of-concept in-situ-recovery field leach trial by mid 2010.
2. Continue the drill out of recently discovered mineralisation north and south of Blackbush with the objective of delineating new JORC compliant Inferred Resources for them.
3. Conduct initial exploration drilling south of the Mullaquana Project.
4. Continue to acquire the information which is required for the development of the documentation which will be required to commence permitting by mid 2010.

OVERVIEW

1. Exploration drilling continues to expand mineralization at Mullaquana Project.

On 20 August 2009 UraniumSA announced drilling to the south and north of the Blackbush Prospect had continued to intersect potentially economic grades and thickness of uranium mineralisation. This confirmed the predictive strength of the geological models being employed and ultimately led to a significant increase in the Company's exploration objectives.

Exploration Objective:

50 to 80 million tonnes of uranium mineralisation at grades of between 0.01 % eU₃O₈ (lower cut off grade) and 0.20% eU₃O₈ (grades from recent drilling).

This exploration objective is conceptual in nature and excludes the already defined Blackbush Inferred Resource of 12 Mt @ 0.02 % eU₃O₈ (224 ppm eU₃O₈) containing an estimated 2,700 tonnes U₃O₈.

2. Successful Capital Raising

UraniumSA announced on 9 October that it had successfully arranged to raise \$4,000,000 before costs through the placement of 20,000,000 fully paid ordinary shares at 20 cents each. The issue of 15,000,000 of the shares is subject to shareholder approval at the Company's AGM.

BGF Equities Pty Ltd has managed the placement, which has been made to institutional and sophisticated investors.

3. Annual General Meeting Notice 2009

AGM 2009; Notice was given that the Annual General Meeting of the shareholders of UraniumSA Limited (Company) will be held at Enterprise House, 136 Greenhill Road, Unley 5061, South Australia, in room 6 on Wednesday 18 November 2009 at 10.30 am (Adelaide time).

EXPLORATION RESULTS

1. Mullaquana project, Eastern Eyre Peninsula.

Drilling to the south and north of the Blackbush Prospect continued to intersect potentially economic grades and thickness of uranium mineralisation, confirming the predictive strength of the geological models and ultimately leading to a significant increase in the Company's exploration objectives.

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50 to 80 million tonnes of uranium mineralisation at grades of between 0.01 %eU₃O₈ (lower cut off grade) and 0.20 %eU₃O₈ (grades from recent drilling).

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Drilling results announced on 20 August 2009 established that potential economic grade uranium mineralisation is present in 3 additional areas to the Blackbush Prospect (figure 1):

- 1) **5.5km south of the Blackbush Prospect (Sugarbush Prospect)** in a profile of holes drilled at 800m separations along the southern boundary of the UraniumSA tenements. Three of five holes intersected potentially economic mineralisation, with the best result being hole **MRM098: 12.9m at 0.029% eU₃O₈, including 5.0m at 0.058% eU₃O₈ and a peak grade of 0.232% eU₃O₈**
- 2) **2km north of the Blackbush Prospect (Emubush Prospect)** the first of a profile of drill holes intersected potentially economic mineralisation in hole **MRM101: 5.6m at 0.047 %eU₃O₈, with a peak grade of 0.129% eU₃O₈.**
- 3) **South from the Blackbush Prospect (Sapphire Prospect)** in roll-front envelopes which extend for ~3.5km. Potential ore grade intercepts were achieved in 5 of 13 holes drilled to completion, with the best result being hole **MRM091: 8.3m at 0.013% eU₃O₈ with a peak grade of 0.027% eU₃O₈**

(A map showing the location of these results is provided on the next page. The text continues after the map))

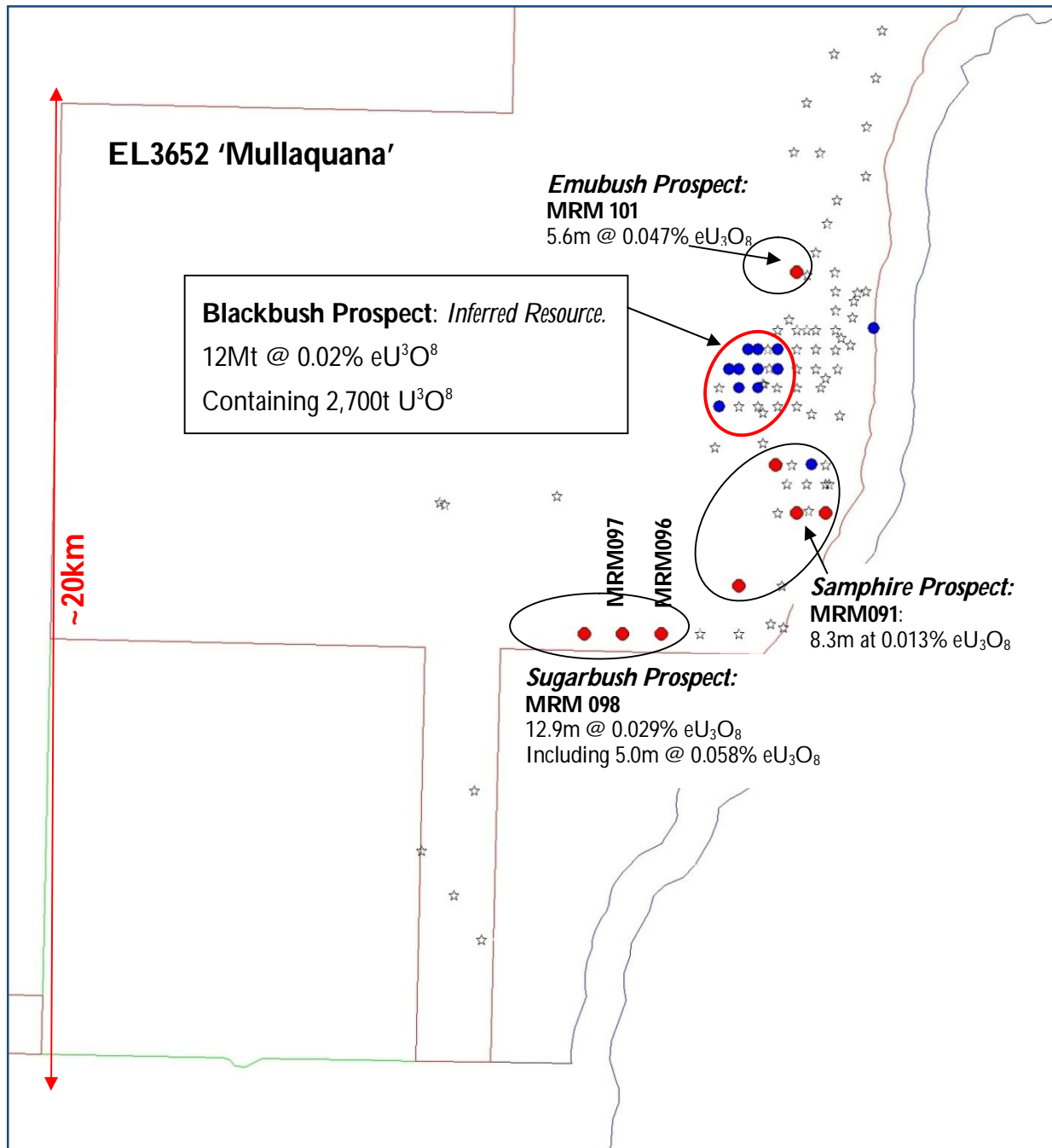


Figure 1: UraniumSA drilling – 3 New Mineralised Areas

- red dots** recent holes which have intersected potentially economically significant mineralisation (above the threshold of a grade thickness >0.05m%U₃O₈ using a cut off 0.01%eU₃O₈ and thickness of 0.30m). Announced 20/8/09
- blue dots** previous holes which have intersected potentially economically significant mineralisation (above the threshold of a grade thickness >0.05m%U₃O₈ using a cut off 0.01%eU₃O₈ and thickness of 0.30m). Previously reported.
- grey stars** all holes which did not intersect potentially economically significant mineralisation.

2. Cleve project: Eastern Eyre Peninsula

No significant work was carried out during the reporting period.

3. Kingoonya Palaeodrainage System

Routine tenure renewals were negotiated with Joint Venture partners Stellar Resources Limited (SRZ) and Marathon Resources Limited (MTN).

CORPORATE

1. Successful Capital Raising

UraniumSA on 9 October announced that it had successfully arranged to raise \$4,000,000 (before costs) through the placement of 20,000,000 fully paid ordinary shares at 20 cents each. The funds raised by the placement will be used to sustain the pace of regional exploration and the drill out of resources within the Mullaquana project tenement, and to commence exploration drilling in the Joint Venture ground to the south of the Mullaquana tenement.

BGF Equities Pty Ltd has managed the placement, which has been made to institutional and sophisticated investors. The placement is being undertaken in two tranches. The first tranche of 5,000,000 shares has been settled under the Company's 15% capacity under ASX listing rule 7.1 and shareholder approval is therefore not required. The second tranche for the balance of 15,000,000 shares to be settled as soon as practicable after receiving the necessary shareholder approval at the Annual General Meeting of its shareholders to be held in November 2009. The Company will also be seeking shareholder approval at the Annual General Meeting to ratify the 5,000,000 shares that have been issued in the first tranche.

2. AGM 2009 Notice

AGM 2009, Notice was given that the Annual General Meeting of the shareholders of UraniumSA Limited (Company) will be held at Enterprise House, 136 Greenhill Road, Unley 5061, South Australia, in room 6 on Wednesday 18 November 2009 at 10.30 am (Adelaide time) for the purpose of transacting the business referred to in this Notice of Annual General Meeting.

3. Corporate Objective

The Corporate objective is to focus operations on the Mullaquana Project and develop the Blackbush Prospect towards production as quickly as is feasible.

PROJECTED ACTIVITY TO 31ST DECEMBER 2009

1. Mullaquana Project: Eastern Eyre Peninsula

- Resource definition at Blackbush Prospect comprising infill drilling to increase geological confidence and acquire technical data, working towards upgrading the resource to Indicated and Measured Mineral Resource JORC categories.
- Regional drilling south of Blackbush Prospect to follow up significant drill hole intercepts, continuing south onto the Stellar Resources and Australiasia Gold Joint Venture areas.

2. Cleve: Eastern Eyre Peninsula

No field work is scheduled. All resources are directed towards Mullaquana.

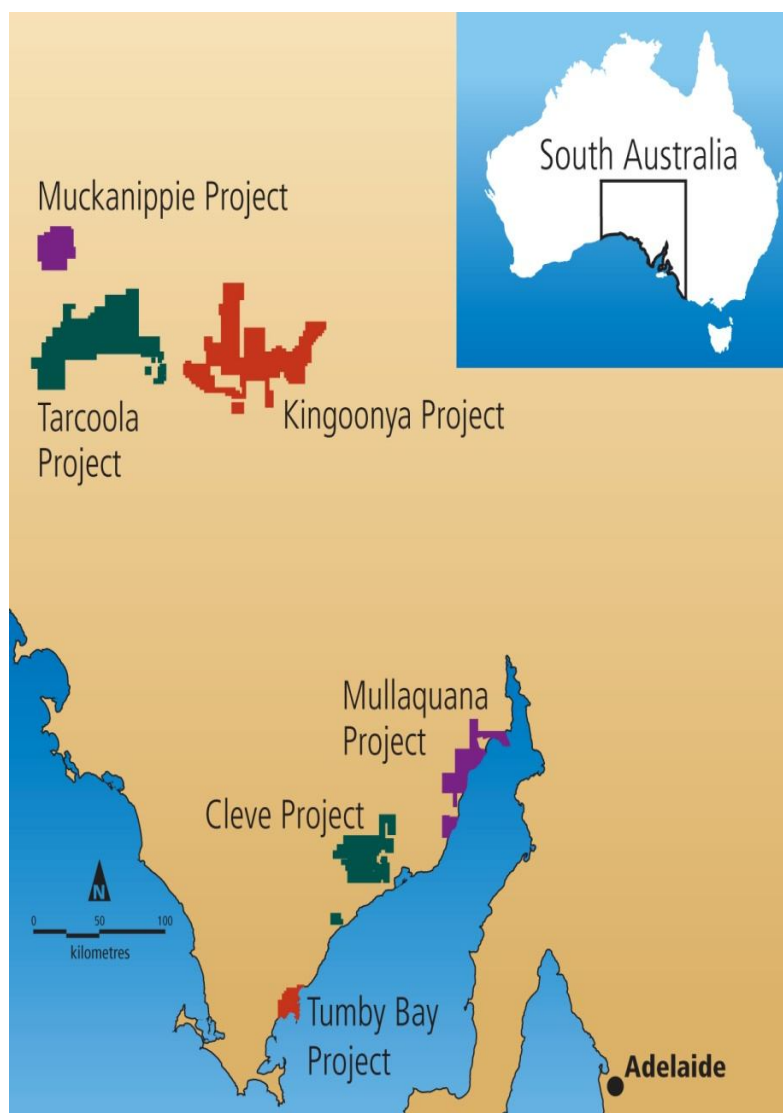
3. Kingoonya Palaeodrainage System Tarcoola, Kingoonya and Muckanippie projects

No field work or drilling is scheduled.

4. Plant and Equipment

One drill rig and associated plant is operating at Mullaquana.

About UraniumSA Ltd



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. The Blackbush Prospect Inferred Mineral Resource of 12Mt at 0.02% eU_3O_8 has an estimated 2,700t contained U_3O_8 . The Company is working to advance the Blackbush Prospect to a 100tpa in-situ-recovery field trial as soon as practicable, while continuing drilling to expand the resource base through incremental addition and new discovery.

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 reported herein, insofar as they relate to mineralisation, are based on information compiled by Ms. Nicole Galloway Warland, Exploration Manager, UraniumSA Limited. Ms Galloway Warland 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 she is undertaking 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). Ms Galloway Warland consents to the inclusion in the report of matters based on her information in the form and context in which it appears. It should be noted that the abovementioned exploration results are preliminary.