UraniumSA Limited
ABN 48 119 978 013

32 Beulah Road
Norwood, South Australia 5067
Australia

Phone +61 (0)8 8132 0577
Fax +61 (0)8 8132 0766
executive@uraniumsa.com.au
www.uraniumsa.com.au

Wednesday, 27 October 2010

AUSTRALIAN SECURITIES EXCHANGE
COMPANY ANNOUNCEMENTS PLATFORM
ASX CODE USA

ACTIVITIES REPORT
3 MONTHS ENDED 30TH SEPTEMBER 2010

OVERVIEW

Highlights of the reporting period have been;

- A new Inferred Resource of uranium oxide mineralisation at the Blackbush Prospect within the Mullaquana Project, southwest of Whyalla on SA's Eyre Peninsula, comprising:
  - 38.7 million tonnes of mineralisation.
  - estimated to contain some 10,400 tonnes of U_3O_8 (22.9 million pounds)
  - bulk average grade of 275 ppm eU_3O_8
  - average thickness of mineralised intersections 11.85m

  This resource establishes the Mullaquana Project as a significant uranium discovery in Australia. The Company is confident that it will continue to rapidly grow the asset base of potentially economic uranium mineralisation at the Blackbush Prospect and elsewhere in the Mullaquana Project.

- The recruitment of a well qualified and expert Project Development Team to advance the Blackbush Prospect to production and to grow the asset based of uranium mineralisation in the Mullaquana Project area to ~20,000t by early 2011.

- QEMSCAN* results which show that uranium in the Blackbush Prospect occurrs as uraninite/coffinite minerals.

- Initial metallurgical results from bottle roll tests on drill core showed the mineralisation is soluble under a range of conditions, consistent with the simple uraninite/coffinite mineralogy.

The Company is continuing to;

- Advance the Blackbush Prospect towards the commencement of an in situ recovery field trial to commence in the second half of 2011.

- Grow the asset of contained uranium within the Mullaquana Project with the objective of having ~20,000t in inventory by the end of the first quarter of 2011.

* QEMSCAN is an electron microscopy technique

MULLAQUANA PROJECT

The Mullaquana Project lies south of Whyalla in South Australia and contains the flagship Blackbush Prospect of sediment hosted uranium mineralisation which is being evaluated for potential development as an in situ recovery mining operation.

BLACKBUSH PROJECT INFERRED RESOURCE

On 23rd September 2010, UraniumSA was able to advise to ASX that following completion of in-fill drilling an updated Inferred Resource of mineralisation had been estimated in accordance with the JORC code comprising:

- 38.7 million tonnes of mineralisation
- estimated to contain some 10,400 tonnes of U_3O_8 (22.9 million pounds)
- bulk average grade of 275 ppm eU_3O_8
- average thickness of mineralised intersections 11.85m

The resource envelope at Blackbush Prospect remains open in several directions and within it there are areas of higher than deposit average grade mineralisation. The resource estimates is being progressively updated as more drilling is done and the assumptions applied are reviewed.

The resource estimate is based on results obtained from rotary mud drilling on a 100m to 200m pattern across prospect. A total of 160 drill holes were included into the resource estimate out of a total of 223 drilled (rotary mud and core holes). Shareholders are referred to the ASX announcement for detail.

PROJECT DEVELOPMENT TEAM

On 7th September 2010, the Company announced its Project Development Team for the Mullaquana Project. The Team brings together skills and experience focussed the development and mining of uranium using in situ recovery (ISR) methods and on the delivery of projects within the South Australia governance and regulatory regime. Shareholders are referred to the ASX announcement for details.

MINERALOGY

On 3rd September 2010, the Company announced the results of imaging of samples of mineralised drill core from the Blackbush Prospect. Five samples were analysed using QEMSCAN (an electron microscopy technique, service provided by SGS Lakefield Oretest Pty Ltd). Uranium mineralisation is present as uraninite/coffinite at the margins and surface of individual grains, and in fractures within the grains. Shareholders are referred to the ASX announcement for details.

METALLURGY

On 6th September 2010, the Company announced that preliminary results of bottle roll tests on drill core samples indicate that the Blackbush Prospect uraninite/coffinite mineralisation is soluble under a range of conditions in laboratory bottle roll tests. Excellent extraction rates were demonstrated with acid reagents and overall, acid and oxidant consumption was moderate to low. Shareholders are referred to the ASX announcement for details.

OTHER MULLAQUANA PROSPECTS

There was no new exploration work completed on the other named prospects within the Mullaquana Project during the reporting period.

SRZ JOINT VENTURE

Drilling to fulfil Joint Venture commitments was carried out in Exploration Licence 4242, the SRZ Joint Venture area south of the Mullaquana tenement.

A total of fifteen widely separated drill holes (several hundred metres to several kilometres) has been completed in the SRZ JV area. The objective of the drilling has been to trace the trend of uranium mineralisation south from the UraniumSA Plumbush Prospect into the JV ground and examine the basin architecture stratigraphy in the area.

Mineralisation of probable economic significance is present within an arcuate zone which is indicated to extend approximately 4.5km from the Plumbush Prospect in the northeast, through the SRZ JV ground, and back into the UraniumSA tenure in the southwest. The apparent dimensions of the system and the thickness/grade of mineralisation intersected to date indicate the area has excellent exploration potential for the delineation of uranium mineralisation amenable to in situ recovery extraction. Best results were from drill holes MRM 136 (which has a grade thickness accumulation of 0.308 m%) and MRM 137 (which has a grade thickness accumulation of 0.158m%), both of which are well above the level of potential economic significance (0.05m%). The area has excellent prospectivity and more work will be carried out.

Shareholders are referred to the ASX announcements of both SRZ and USA on 28th July 2010 for details.

AAO JOINT VENTURE

Drilling to fulfil Joint Venture commitments was carried out in Exploration Licence 3542, the AAO Joint Venture area south and west of the Mullaquana tenement.

A total of thirteen widely (several hundred metres to over a kilometre separation) separated drill holes has now been completed in the AAO JV area. The objective of the drilling has been to explore for uranium mineralised settings towards the western margin of the sedimentary basin. Potentially prospective sediments were found in the south and west of the area and one hole reported uranium mineralisation. The area continues to be prospective and more work will be carried out.

Mullaquana – Forward work program to end September 2010

Blackbush Prospect: The focus will continue to be on advancing the Blackbush Prospect to a field trial. An ongoing review and rework of the data will examine the sensitivities of the estimates to differing assumptions. The major work will be in analytical, metallurgical, hydrogeological projects as part of the progression to a field trial.

Plumbush Prospect: A further round of exploration drilling of the Plumbush Prospect is scheduled to commence at the start of the next reporting period. It is anticipated the prospect will make a significant contribution to the growth of the asset base of uranium mineralisation in the Mullaquana Project area.

SRZ Joint Venture: The north-western corner of the JV area contains continuations of the Plumbush Prospect uranium mineralisation. It is anticipated that parts of this area may be drilled in the coming reporting period.

OTHER SOUTH AUSTRALIAN PROJECTS

CLEVE PROJECT, EASTERN EYRE PENINSULA (SA)

UraniumSA has entered into a joint venture with Archer Exploration Limited (ASX code AXE) over the Cleve tenement, Exploration Licence 3377. Native Title issues are being resolved and there is no work presently scheduled for the project.

TARCOOLA PROJECT, KINGOONYA PALAEODRAINAGE SYSTEM (SA)

Planning is well advanced for an exploration drilling program in the Tarcoola Project. A reconnaissance of tracks and infrastructure has been completed, and contracts are being negotiated for field work.

CORPORATE

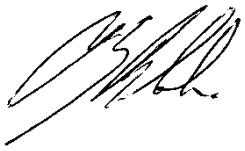
The focus of the Board remains on advancing the Blackbush Prospect towards a field trial, and on growing the asset base of uranium mineralisation under relevant JORC classification through continuing exploration of the Mullaquana Project and adjacent Joint Venture areas.

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 in its Mullaquana Project, 20km south of the industrial city of Whyalla on the eastern Eyre Peninsula. 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.

At the Blackbush Prospect in the Mullaquana Project there is an Inferred Mineral Resource of 38.7 million tonnes at a bulk grade of 275ppm eU_3O_8 with an estimated 10,400t (22.9 million pounds) contained U_3O_8. Drilling of other prospects at Mullaquana is continuing to obtain intersections above deposit average grade and thickness.

The exploration objective is to expand the base of identified uranium mineralisation through incremental addition and new discovery to build the Mullaquana Project to a discovery of international significance. At the Blackbush Prospect, the Company is working to establish an in situ recovery field trial during 2011 with the objective of being able to commence production during 2012.



Russel Bluck
Managing Director
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.