

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

URANIUM IN GRANITE

Mullaquana Uranium Project Eyre Peninsula, South Australia

UraniumSA advises that it has discovered medium to high grade uranium mineralisation in granite basement rocks underlying the Blackbush sediment hosted uranium deposit within the Mullaquana project area, south of Whyalla on the Eyre Peninsula, South Australia. In the discovery, core drilling has been carried out with the assistance of South Australian Government PACE Drilling Collaboration Grant DPY6-27.

The results obtained in the discovery drill hole MRM 778 and the subsequent paired hole MRC 006 which was drilled to confirm the discovery result are:

Hole ID	hole information	summary of intercepts
MRM 778	the discovery hole which was paired by MRC 006, mineralisation was open at eoh 84m	3.9m at 328ppm pU₃O₈ (100ppm cut-off) peak grade 1,376ppm pU₃O₈
MRC 006	confirmation paired hole, cored clay altered granite 78.00 to 79.00m, eoh 101.5m	5.4m @ 434ppm pU₃O₈ (100ppm cut-off) peak grade 2,485ppm pU₃O₈

The uranium mineralisation is contained in clay altered, sulphide bearing rocks of the Mullaquana granite. This granite hosted mineralisation is separate from that contained in the overlying Eocene sediments which contain the Blackbush and Plumbush deposits (aggregate Inferred Resource of 42 M lb of uranium mineralisation, ASX 14 April 2011).

The Mullaquana granite is an informal name used for a feature identified from aeromagnetic data and interpreted to be a Hiltaba suite intrusive. Cores from the granite are visually similar to other Hiltaba suite intrusive bodies and laboratory work to confirm this interpretation is underway.

A short interval of drill core was obtained from hole MRC 006 within the mineralised zone. Laboratory work on the core has commenced; results will not be available for some time. Visual appraisal indicates that:

1. the core recovered consists of clay (kaolinite?) pseudomorphs after feldspar with remnant quartz, aluminosilicate (?) minerals and fine grained sulphides.
2. uranium minerals are not visible.
3. there is no apparent brecciation or veining.
4. hematite alteration or veining is not present.
5. silicification or carbonatisation is not apparent.

The uranium mineralisation intersections reported here are hosted by an apparent Hiltaba suite granite but the origin and affiliations of the mineralisation are unknown.

URANIUM IN GRANITE BASEMENT

Mullaquana Uranium Project Eyre Peninsula, South Australia

UraniumSA has intersected medium to high grade uranium mineralisation in a cored drill hole sampling the granite basement which underlies its Mullaquana sediment hosted uranium prospect located south of Whyalla on the Eyre Peninsula in South Australia. The drilling has been carried out with the assistance of South Australian Government PACE Drilling Collaboration Grant DPY6-27. Six holes targeted granite basement underlying the uranium mineralised Eocene sedimentary sequence; four recovered cores of granite.

RESULTS

The summary of the results of the present round of core drilling is;

Hole ID	cores cut & hole information	summary of intercepts
MRC 004	no core, saprolite& weathered granite to eoh at 160m	saprolite/granite range 30 – 50 ppm eU ₃ O ₈
MRC 005	cored granite 59.03 to 61.98m, eoh	granite range 80-100 ppm eU ₃ O ₈
MRC 006	cored clay altered granite 78.00 to 79.00m, eoh 101.5m	5.4m @ 434ppm pU₃O₈ (100ppm cut-off) peak grade 2,485ppm pU₃O₈ (Figure 1)
MRM 778	<i>the discovery hole paired by MRC 006 mineralisation was open at 84m eoh</i>	<i>3.9m at 328ppm pU₃O₈ (100ppm cut-off) peak grade 1,376ppm pU₃O₈, (Figure 1)</i>
MRC 007	no core, saprolite and weathered granite to eoh at 150m	saprolite/granite range 50-70 ppm eU ₃ O ₈
MRC 007A	cored granite 154.00m to 160.8m, eoh	granite range 70-80 ppm eU ₃ O ₈
MRC 009	cored granite 94.12m to 100.00m, eoh	granite range 80 -100 ppm eU ₃ O ₈

The radiometric and geological logs of MRM 778 and MRC 006 are presented in Figure 1, and the collar location of all cored holes in Figure 2.

The granite cores recovered from drill holes MRC 005, 007A and 009 are medium to coarse grained granites with unstrained fabrics, variable composition, alteration and minor veining. The cores are visually similar to Hiltaba suite granites: laboratory work has been commissioned.

The uranium mineralisation intersected in MRC 006 occurs in clay altered granite comprising clay (kaolin?) pseudomorphs after feldspar, quartz, and irregular patches of a platy aluminosilicate (?) mineral with fine grained sulphides. The host rock and style of mineralisation is distinctly geologically different from the host rock and style of mineralisation in the overlying Eocene sediments which host the Blackbush Inferred Resource of uranium mineralisation.

As yet, there is insufficient information available to evaluate the economic significance of this granite hosted uranium mineralisation.

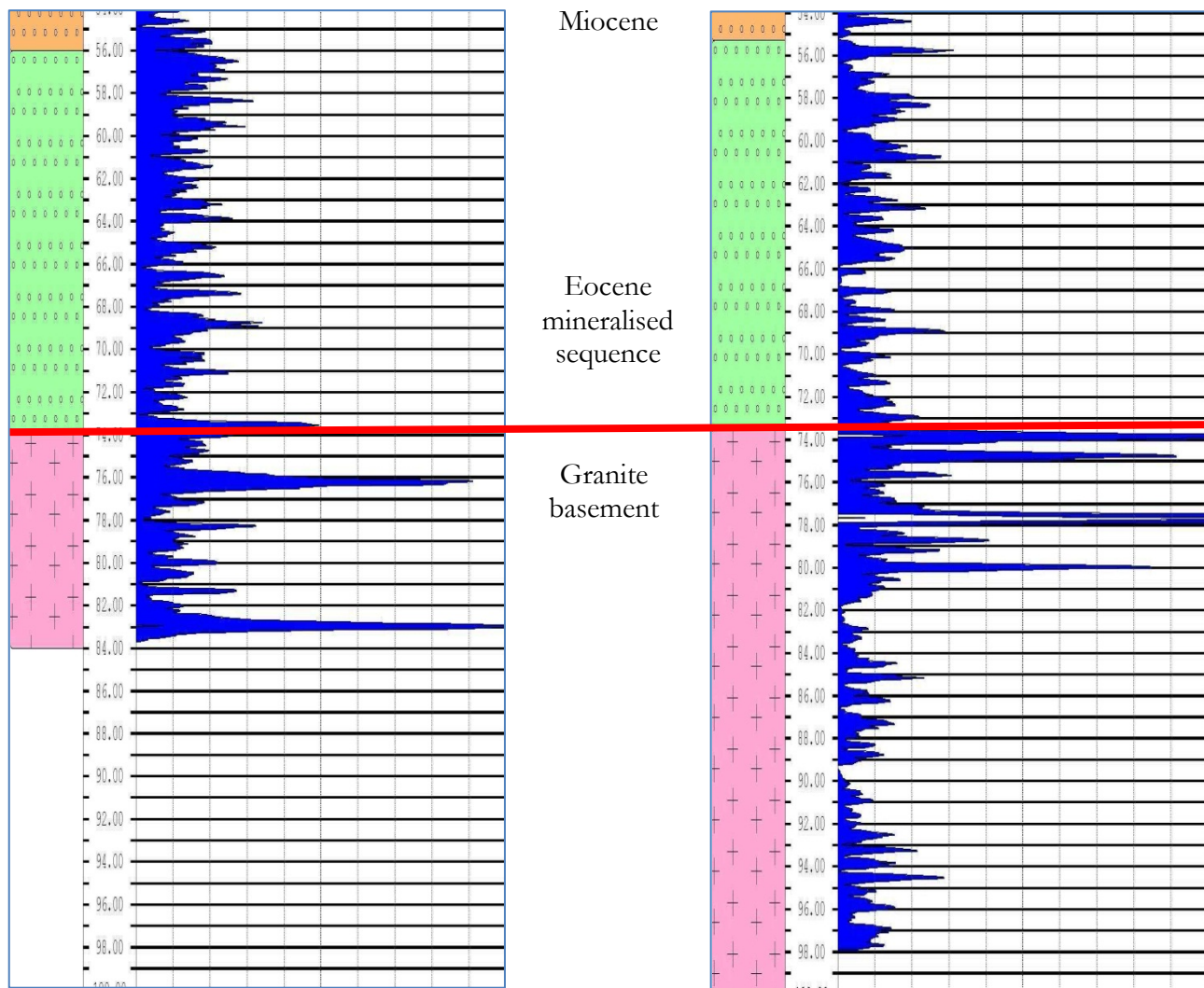
Figure 1

MRM 778

discovery hole, routine delineation drilling

MRC 006

collared 3m southwest to twin and confirm the discovery in MRM 778



Geophysical log: Geoscience Associates Australia PFN tool.

Full scale is 1,000ppm pU_3O_8 (or 0.1%), vertical divisions are 100ppm

Drill hole depth below surface in meters, horizontal divisions are 1m intervals

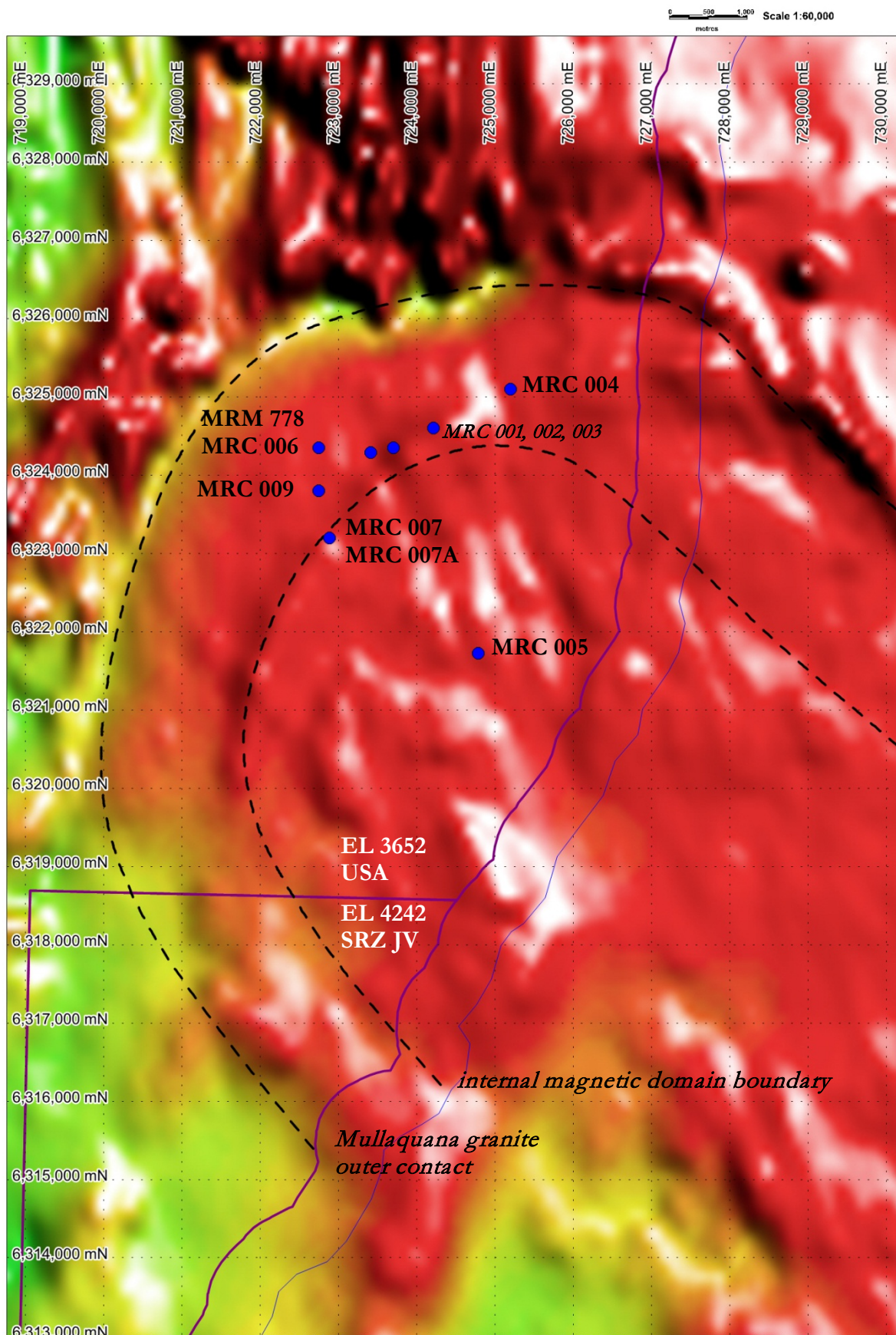
The core holes reported herein were not completed in number sequence. MRC 001 to MRC 003 were drilled in early 2010 to obtain cores from the mineralised Eocene sediment sections for metallurgical testing. MRC 006 was the last hole in the present program. Not all numbers in the MRC sequence have been used. See Figure 2.

In this text:

1. **MRM** denotes a rotary mud hole drilled in the course of routine exploration or delineation work.
2. **MRC** denotes a hole drilled to recover solid core for geological or other purposes.
3. **coh** is short for "end of bore".
4. **ppm eU_3O_8** indicates grades in parts per million determined using a calibrated natural gamma tool.
5. **ppm pU_3O_8** indicates grades in parts per million determined by Geoscience Associates Australia using a calibrated prompt fission neutron (PFN) tool.

Figure 2

Location of core hole collars on Total Magnetic Intensity



DISCUSSION

Mineralised material

The style of mineralisation reported here was first recognised in rotary mud hole MRM 778 which was drilled during a delineation program in the western portion of the Blackbush deposit. A data review identified a local cluster of 3 holes with possibly similar mineralisation; Figure 3. MRC 006 was collared 3m southwest of MRM 778 to twin and confirm that intersection; Figure 1. Coring was attempted from 76 to 79m and from 96 to 100m with recovery only from 78.09 to 79.00m.

Both holes were logged on completion by Geoscience Associates Australia with a PFN tool.

The uranium mineralisation intersected in MRC 006/MRM 778 occurs in clay altered granite comprising clay (kaolinite?) pseudomorphs after feldspar, quartz, and irregular patches of a platy aluminosilicate (?) mineral with fine grained sulphides. There is no discernable breccia fabric or veining in the recovered core. There is no information on the attitude or extent of the mineralisation intersected. Laboratory studies have commenced.

Drill profiles

Routine exploration and development rotary mud drill holes are terminated once basement is recognised. Where holes have extended down into basement the radiometric profiles are typically flat and linear indicative of a massive undifferentiated unit. On occasion, the radiometric profile in basement is stepped and suggestive of compositional or other layering in the granite.

A saprolite profile of variable thickness is present at the top of the granite basement across much of the area. This saprolite presents as clay with embedded disseminated quartz and has a subdued radiometric response; iron oxides are rarely observed and no sulphides have been recorded. There are locally developed ferricrete horizons which generally have an associated low order radiometric anomaly.

Regional associations

The Mullaquana project is underlain by a circular, concentrically zoned magnetic feature which is interpreted as Hiltaba suite granite and informally named the Mullaquana granite; Figure 2, 3.

A review of the uranium content of granite basement at end-of-hole (screened to eliminate ferricrete intercepts, above) has been carried out: holes reporting above 100ppm eU₃O₈ have been taken as anomalous and are plotted in Figure 3. The data is not conclusive, but there is an apparent association between anomalous granites at eoh and the outer magnetic domain of the Mullaquana granite.

At the deposit scale, there is a spatial association between drilled out resources at the Blackbush and Plumbush deposits (total Inferred Resource of 42M lb of U₃O₈ mineralisation) and the outer magnetic domain of the Mullaquana granite: Figure 3.

Exploration significance

The uranium mineralisation intersected in MRC 006 occurs in clay altered granite comprising clay (kaolinite?) pseudomorphs after feldspar, quartz, and irregular patches of a platy aluminosilicate (?) mineral with fine grained sulphides. It is distinctly geologically different from the mineralisation in the overlying Eocene sediments which host the Blackbush Inferred Resource. It appears geologically distinct from the saprolite material which is extensively developed at the unconformity surface present at the base of Eocene sedimentation.

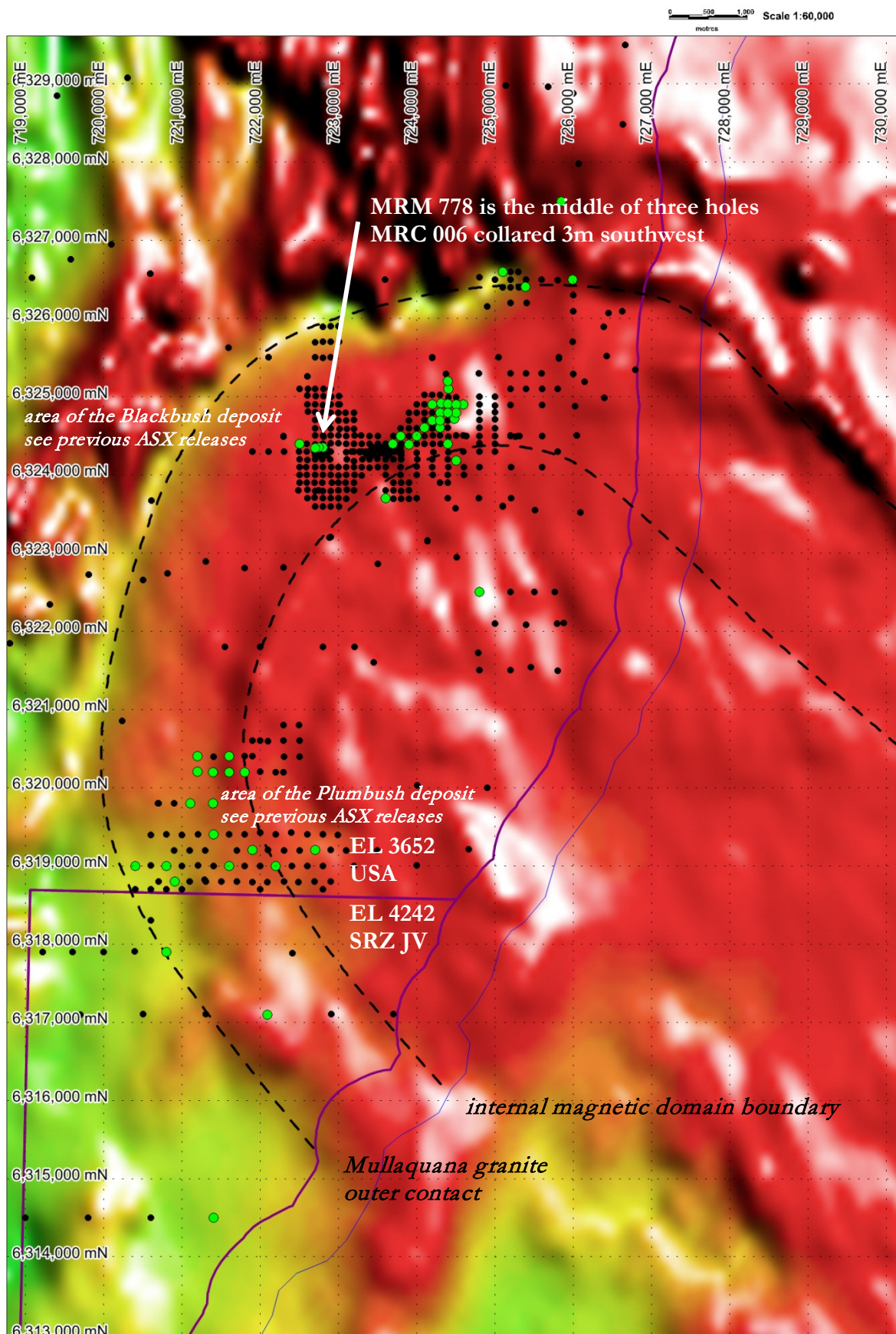
The preferential distribution of anomalous granites in the outer magnetic domain is assumed to reflect a higher uranium endowment in this geophysically distinct phase of the Mullaquana granite intrusive.

The principle alternative geological models for the mineralisation intersected in drill holes MRM 778 and MRC 006 are that it either represents a sub-phase of Hiltaba suite granite in the outer magnetic domain, or that it is related to the weathering profile at the basal Eocene unconformity. Laboratory and geophysical investigations are in progress.

Figure 3

Green dots - drill holes with anomalous basement (>100ppm eU3O8)

Black dots – all other drill holes



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.

The inventory of uranium mineralisation in the Blackbush and Plumbush deposits within the Mullaquana project is some 19,050 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.

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.