# **ASX** ANNOUNCEMENT 27 July 2011

URANIUM EQUITIES LIMITED ACN 009 799 553



The Company Announcement Officer Australian Securities Exchange Ltd via electronic lodgement

# Quarterly Report Ouarter ended 30 June 2011

#### **Highlights**

#### PhosEnergy - Uranium Extraction Technology

- Cameco invested third tranche investment of US\$5 million for further development of the PhosEnergy Process for the extraction of uranium from phosphoric acid streams
- Construction and commissioning of Demonstration Plant complete
- Demonstration Plant en route to US for planned operation at a fertiliser facility

#### **Uranium Exploration**

- Follow-up diamond drilling targeting the Coopers and U40 Prospects, West Arnhem Joint Venture commenced
- Reverse Circulation drill crew mobilised to Nabarlek Mineral Lease
- Exploration drill program on the Lake Blanche Project in South Australia has commenced

#### Corporate

• The Group's cash balance at the end of the Quarter was \$4.9 million.

#### Our Strengths

- Breakthrough PhosEnergy Process
- Nabarlek Project A rare investment opportunity
- Multiple near term growth opportunities

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#### 1. URANIUM EXTRACTION TECHNOLOGY

Through USA-registered Urtek LLC ("Urtek"), Uranium Equities is developing a new technology for the extraction of uranium from phosphoric acid streams produced in the production of phosphate-based fertilisers, "the PhosEnergy Process".

Cameco Corporation is funding the ongoing development and commercialisation of the PhosEnergy Process through a staged investment of up to US\$16.5 million. If Cameco earns its interest it has agreed to provide funding for a minimum of 50% of UEQ's portion of capital expenditure, under terms to be agreed, for the construction of the first commercial plant, repayable out of earnings.

UEQ estimates the cash operating cost of uranium production employing the PhosEnergy Process to be **US\$20** to **US\$25** per pound of  $U_3O_8$ . This cost estimate is based on a 1 million tonne per annum  $P_2O_5$  phosphate production facility operating in the USA and incorporates a significant contingency of 40%.

#### 1.1. Funding

On 21st June 2011, **Cameco** made a further investment of US\$5 million in the PhosEnergy Process. The third stage investment, to be used to further the jointly held technology, brings Cameco's total investment in the PhosEnergy Process to US\$12.5 million, of which ~US\$5 million remains on hand. The investment represents a further strong endorsement of the potential of the Process.

The Cameco investment will be applied towards the planned operation of a Demonstration Plant at a US-based fertiliser producer and an associated Pre Feasibility Study (PFS) on the PhosEnergy Process.

#### 1.2. Activities – Technical and Business Development

Construction and commissioning of the Demonstration Plant was completed in Adelaide during the Quarter, with the Demonstration Plant now en route to the operational site. The Demonstration Plant is a fully integrated and process controlled facility designed to test the efficacy of the PhosEnergy Process under industrial conditions.

The Demonstration Plant encompasses all of the key aspects of the PhosEnergy process within two 40-foot shipping containers (*Figure 1*), and is planned to operate at a site in the US to provide cost and design data to enable the construction of a full-scale commercial facility.

This first-class asset has been constructed to international standards and is able to be easily transported, and integrated into, phosphate fertilizer facilities around the world.



Figure 1





#### 2. Uranium Exploration Activities

Uranium Equities has a focused exploration portfolio of eight key uranium projects in the Northern Territory, South Australia, Western Australia and Queensland. This portfolio includes Exploration Licences (and Applications) covering an area of over 24,000km², representing a number of different uranium deposit styles and targets.

A key focus for the Company is the West Arnhem Joint Venture with Cameco Australia (UEQ 40%) and the 100%-owned Nabarlek Mineral Lease, which represents a rare near-mine exploration opportunity surrounding the historic Nabarlek Uranium Deposit (24Mlbs @ 1.84%  $U_3O_8$ ). The deposit lies within an extensive uranium mineral system which extends over more than  $50 \text{km}^2$  within the Mineral Lease and the surrounding tenements.

#### 2.1. West Arnhem Joint Venture – 40% UEQ: 60% Cameco Australia (Manager) (NT)

During 2010, the Joint Venture tested a number of target areas within the 477km<sup>2</sup> West Arnhem Joint Venture project area in the Northern Territory (*see Figure 2*) including the **U40 Prospect** and the **Coopers Prospect**.

During the Quarter, the joint venture commenced an extensive exploration program on the West Arnhem Joint Venture which includes 1,200 metres of diamond drilling, 3,150 metres of Reverse Circulation (RC) drilling and a ground gravity survey over the prospective Quarry Fault Zone (QFZ) (see Figure 1). The drilling program is targeting extensions and structural repetitions to the known high-grade mineralisation at both the U40 and Coopers Prospects.

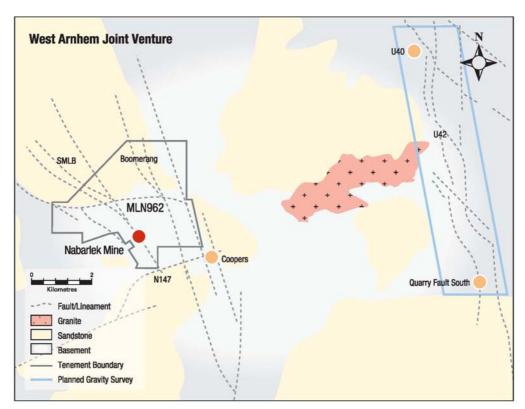


Figure 2

Diamond drilling was completed at the Coopers Prospect, testing for interpreted extensions of known ore grade





mineralisation identified in 2009 and 2010. Results from the drilling are pending. Significant intercepts from 2010 drilling included 23m @ 1,980ppm  $U_3O_8$  from  $40m^{(1)}$  (NAR7386) and 6.0m @ 3,282 ppm  $U_3O_8$  from  $23m^{(1)}$  (NAR7374).

#### 2.2. Nabarlek Mineral Lease (100% UEQ) (NT)

A 5,000 metre RC drilling program commenced following the end of the quarter at the 12km<sup>2</sup> Nabarlek Mineral Lease (ML) to follow up unconformity and basement geochemical anomalies identified by drilling in 2010 along the Nabarlek – Boomerang Corridor, to the north of the historic Nabarlek Pit (*see Figure 3*).

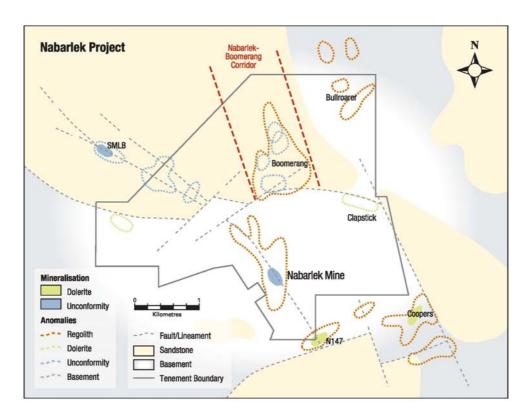


Figure 3

Drilling will focus on extending and completing systematic drill coverage over a previously untested area immediately east of the Boomerang Prospect. Targets are unconformity related mineralisation below thin Kombolgie Sandstone cover. Additional close spaced drilling will focus on the Boomerang Prospect, where a strong basement anomaly has been intersected by a number of drillholes completed during the 2010 program. Overall, the anomalous area extends over an area of approximately 300 x 200m.

The 2011 exploration drilling program within the Nabarlek ML will target a Nabarlek-type deposit – a high grade deposit with a very high net value. The historic Nabarlek Mine produced 24Mlbs of  $U_3O_8$  at an average grade of 1.84% from a mineralised zone approximately 200m long to a depth of 70m.

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#### 2.3. Frome Basin (SA)

Uranium Equities has consolidated a large (2,397km²) strategic ground position in one of Australia's most prospective uranium provinces, South Australia's Frome Basin. The ground position comprises the West Lake Frome Joint Venture, a \$5 million farm-in agreement with Cauldron Energy Limited (ASX: CXU), and three UEQ 100%-owned exploration licences.

A 4,200 metre rotary-mud drilling program commenced following the end of the quarter along the western margin of the Frome Embayment, with three traverses over the highest priority targets. The bulk of this drilling isa planned to be completed in August. Targeting is designed to test structural positions along the Wertaloona Fault Zone, using the Four Mile/Pepegoona mineralisation style as the model.

#### 2.4. Headwaters Project (NT) (Vale Earning 70%)

The Headwaters Project, including 2,672km² of granted tenements, is located within the Arnhem Land Plateau along the western margin of the Proterozoic McArthur Basin. The Project is being funded by Vale Exploration Pty Ltd ("Vale"), a wholly-owned Australian subsidiary of Vale S.A, under a JV agreement. Vale has elected to proceed to Phase 2 of the Project whereby Vale may earn a 70% interest over the next five years by sole funding expenditure to completion of a Pre-Feasibility Study.

Additional processing and interpretation of a detailed airborne magnetic-radiometric survey flown for the Company during 2010 has revealed regions with an elevated radiometric response associated with regional structural positions (Figure 4). Planning for the 2011 field season work program is focusing on these previously unexamined regions with the intention of prompt field reconnaissance once access to the area can be gained.

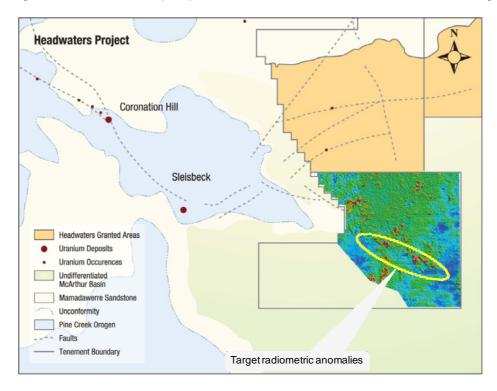


Figure 4





#### 2.5. Lake Blanche (SA) (Cameco Earning up to 60%)

The Lake Blanche Project is targeting sandstone-hosted uranium located within the Eromanga Basin, 80 to 190km north-east of the highly uraniferous Mt Painter Block, in South Australia. The tenement package comprises seven exploration licences totalling 6,074km². The Lake Blanche Project is in joint venture with and managed by Cameco Australia Pty Ltd, where Cameco has the right to earn up to a 60% interest in the Project.

More than **6,000 metres of rotary mud drilling** targeting prospective Tertiary and Cretaceous sediments at the Lake Blanche Project has commenced. The program follows on from drilling in 2009 which identified anomalous uranium in two holes and a 2010 Ground EM survey which highlighted potential broad palaeodrainage.

Airborne geophysics are also planned to delineate extensions to interpreted paleodrainage identified in the 2010 geophysics campaign.

#### 2.6. Rudall River (WA)

The Rudall River Project consists of three Exploration Licence Applications covering 162km<sup>2</sup>, the western-most of which adjoins the Cameco/Mitsubishi Kintyre Project.

The native title negotiation process has commenced with the Traditional Owners of the Rudall River region. A successful outcome from this process will allow the applications to proceed to grant. The Company believes the region is prospective for additional Kintyre-type mineralisation.

#### 3.0 CORPORATE

The Group's cash balance at the end of the quarter was \$4.9 million, inclusive of a \$1.8 million performance bond against Nabarlek rehabilitation obligations. Following Cameco's US\$5 million investment in June 2011 which gave them majority ownership rights in the technology, the balance now excludes funds held on account as part of the earn-in expenditure on the PhosEnergy Process. Refer Appendix 5B for further information.

Bryn Jones Managing Director

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 $^{1}$  Results provided by Northern Territory Environmental Laboratories Pty Ltd. Intercepts calculated using a cut-off grade of 200ppm U<sub>3</sub>O<sub>8</sub> and may contain a maximum internal dilution of 2m. All intercepts are down hole lengths.

#### **Competent Person Statement**

The information in this announcement that relates to Exploration Results is based on information compiled by Mr. Grant Williamson, Geology Manager - Exploration of Uranium Equities Limited, who is a Member of the Australian Institute of Geoscientists and of the Australasian Institute of Mining and Metallurgy Inc. Mr. Williamson has sufficient experience in the field of activity being reported to qualify as a Competent Person as defined in the 2004 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, and consents to the release of information in the form and context in which it appears here.

#### **About Uranium Equities**

Uranium Equities Limited (UEQ) has two main areas of focus: The development of the **PhosEnergy Process**; and exploration activities directed at a small core of high quality exploration assets which include the key **Nabarlek Project**.

The PhosEnergy Process is an innovative patented process for the extraction of uranium as a by-product from phosphate in the production of phosphate based fertilisers.

The global annual production potential of uranium from the phosphate industry is in the order of 20 Mlbs  $U_3O_8$ . This quantity of uranium is mined in phosphate ores but not recovered annually on a worldwide basis. The major phosphate based fertiliser producers are located in Northern Africa, North America and Asia.

The PhosEnergy Process has been proven to pilot scale with results establishing a robust process capable of achieving high levels of uranium recovery at the lower end of the cost curve.

The Nabarlek Project provides a rare near mine exploration opportunity surrounding the historic Nabarlek uranium deposit (24 Mlbs @ 1.84% U<sub>3</sub>O<sub>8</sub>). The deposit lies within an extensive uranium mineral system which extends over more than 50 square kilometres within the Mineral Lease and the surrounding tenements. The mineral system which contains widespread anomalous uranium geochemistry and ore grade mineralisation at several locations remains largely untested.