ASX ANNOUNCEMENT

27 January 2011

URANIUM EQUITIES LIMITED ACN 009 799 553

URANIUM EQUITIES

The Company Announcement Officer
Australian Securities Exchange Ltd
via electronic lodgement

Quarterly Report
Quarter ended 31 December 2010

Highlights

PhosEnergy - Uranium Extraction Technology

- Design of a Demonstration Plant to test the efficacy of the PhosEnergy Process under industrial conditions has been completed and construction is well advanced.

Exploration

- Final laboratory results for drilling at the U40 Prospect on the West Arnhem Joint Venture produces significantly higher uranium grades compared with previously announced results from down-hole gamma probing, including intercepts of 6.8m @ 6.71% U_3O_8, and 4.8m @ 1.85% U_3O_8.
- Follow-up RC drilling over three previously-reported geochemical uranium anomalies within the Nabarlek Mineral Lease (ASX 27/10/10) provides better defined or extended target areas at all three prospects and intersected significant uranium mineralisation at the Clapstick and Boomerang Prospects.

Corporate

- The Group's cash balance at the end of the quarter was $9.7 million ($3.2 million has been received and is held on account from Cameco as part of earn in expenditure on the PhosEnergy Process).

Our Strengths

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

HEAD OFFICE
Level 5
29 King William Street
Adelaide, SA 5000
T: +61 8 8110 0700
F: +61 8 8110 0777
E: reception@uel.com.au

PERTH OFFICE
Level 2, 1292 Hay Street
West Perth, WA 6005
GPO Box 2890
Perth, WA 6001
T: +61 8 9322 3990
F: +61 8 9322 5800

www.uel.com.au

1. URANIUM EXTRACTION TECHNOLOGY

1.1. Activities

Technical and Business Development

The design of a fully integrated and process controlled 150L/h demonstration plant was completed during the Quarter and construction is well underway. The demonstration plant is designed to test the efficacy of the PhosEnergy Process under industrial conditions.

Completion of the demonstration plant, being constructed in Adelaide, is planned for Q1 2011. The plant is designed to be completely transportable and will be deployed initially with a phosphate fertiliser producer in North America with which the Company has a non-binding agreement.

Operation of the Demonstration Plant, planned for 2011, will be a major step towards the commercialisation of the PhosEnergy Process.

Further non-provisional patents have been applied for in 13 countries for the PhosEnergy process.

1.2. Background

Uranium Equities through USA registered Urtek LLC ("Urtek") 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, incorporating a significant contingency of 40%.

2. Exploration Activities

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

The Joint Venture tested a number of target areas during 2010. The most significant was the U40 Prospect, located 10km east-north-east of the historic Nabarlek Uranium Mine (*Figure 1*) within the 477km^2 West Arnhem Joint Venture.

During the Quarter, the Joint Venture received final independent laboratory assay results from the drilling program conducted at U40, with the results returning significantly higher uranium grades than those determined by the down hole gamma probe (see ASX Announcement – 21 October 2010) as follows:

NAD7492	6.8m @ 6.71% U_3O_8 from 75m (previously reported 6.65m @ 2.6% eU_3O_8 from 74.2m)
NAD7493	4.8m @ 1.85% U_3O_8 from 80.4m (previously reported 4.8m @ 1.39% eU_3O_8 from 79.8m)

The lithologies encountered in the drill holes are extremely altered, sheared and deformed. Mineralisation occurs as pitchblende and coffinite in massive blebs hosted within intensely altered rock.

The detailed structural controls of mineralisation are yet to be determined but structural analysis of the diamond drill core suggests mineralisation is hosted within a steeply east-dipping shear zone striking north to north-west. NAD7493 appears to have been drilled at a higher angle to the mineralisation and is probably a better indicator of the true width of mineralisation on the drill section.

In addition, laboratory results have also revealed that the uranium mineralisation is associated with elevated levels of gold, copper, palladium and platinum and anomalous heavy rare earth elements. Results include:

NAD7492	7.3m @ 1.68% Cu from 74.5m 4.5m @ 0.91g/t Au from 76.5m 1.5m @ 0.54g/t Pd and 0.24g/t Pt from 78.5m
NAD7493	8.3m @ 2.12% Cu from 77.4m 3.1m @ 6.89g/t Au from 82.1m 2.6m @ 1.57g/t Pd and 0.96g/t Pt from 82.6m

The high-grade intercepts remain the most significant recorded to date in the Nabarlek Project area outside the old Nabarlek Mine and reinforce the outstanding exploration potential for high-grade uranium deposits comparable to the Nabarlek deposit

The Coopers Prospect is located 2.4km east of the Nabarlek Mine and 800m east-north-east of the N147 Prospect close to the south-east corner of the Nabarlek Mineral Lease (UEQ 100%). RC drilling was targeting a uranium bedrock geochemical anomaly previously defined by aircore drilling.

Cameco has advised that final independent laboratory assay results have now been received from drilling at Coopers. Significant intercepts using a 100ppm U_3O_8 cut-off grade include:

NAR7370	14m @ 534ppm U_3O_8 from 28m
NAR7371	26m @ 388ppm U_3O_8 from 33m inc. 2m @ 0.235% U_3O_8 from 35m
NAR7374	6m @ 3270ppm U_3O_8 from 23m inc. 2m @ 0.687% U_3O_8 from 27m

Additional results are currently outstanding including RC drillhole NAR7386 in which visible secondary uranium mineralisation is observed. Strong hematite and chlorite alteration is associated with the mineralisation and occurs in the underlying basement rocks opening up the potential for hidden unconformity related mineralisation below the sill.

At the conclusion of the 2010 drilling program, uranium mineralisation in the dolerite remains open to the south-south-west and the north-north-east along strike. The potential for basement hosted mineralisation remains open to the south-west.

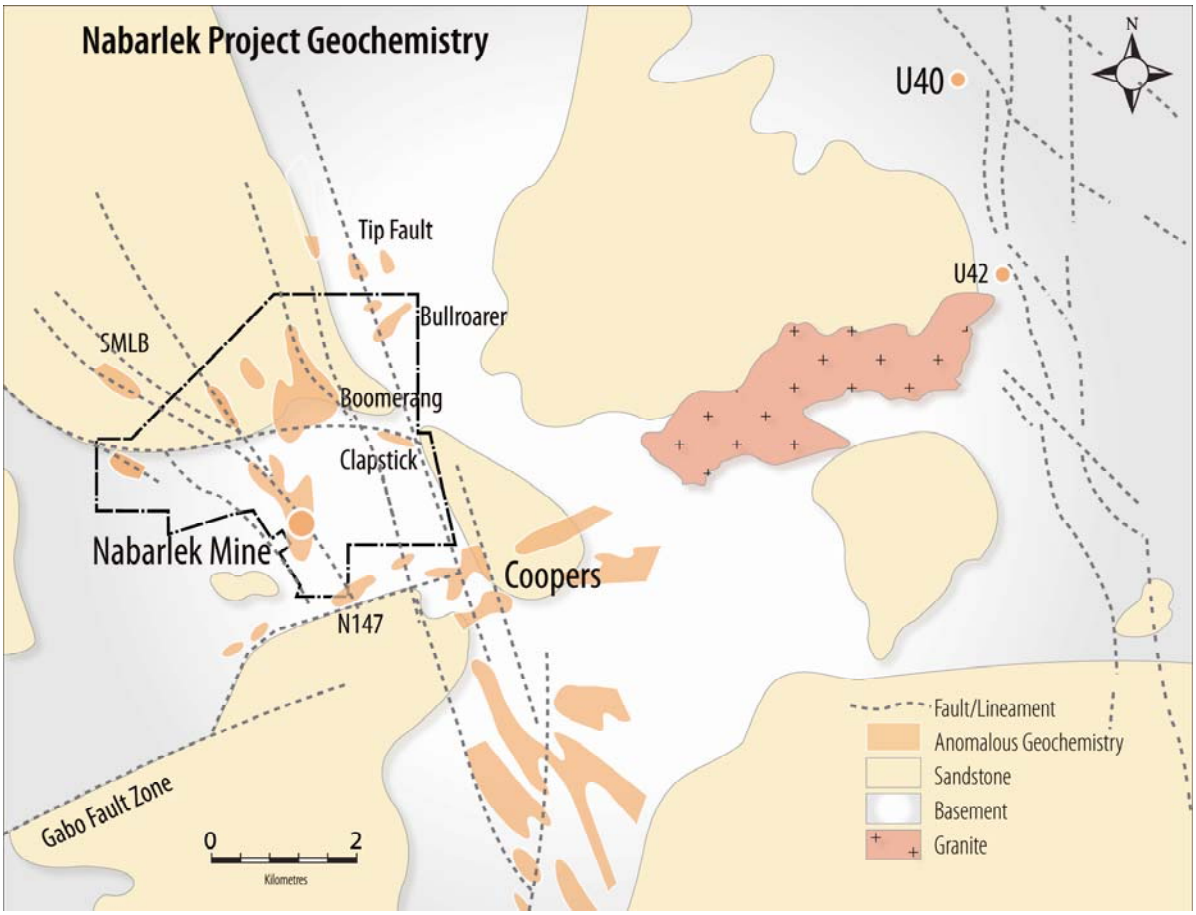

Figure 1 – Nabarlek Project

2.2. Nabarlek Mineral Lease (100% UEQ)

Exploration on UEQ's 100%-owned Nabarlek Mineral Lease in 2010 was directed towards systematic aircore and RC geochemical drilling coverage throughout the Mineral Lease (ML) to generate new target areas. This geochemical style of exploration has worked well in the past and was used to identify the Coopers Prospect anomalism in an area of extensive alluvial cover.

The exploration target for the ML drilling programs is a Nabarlek-type deposit - a high grade deposit with a very high net value. The historic Nabarlek Mine produced 24Mlbs of U_3O_8 from a mineralised zone approximately 200m long to a depth of 70m.

On compilation of the drilling data, three anomalies were the focus of follow-up RC drilling during the Quarter. This drilling has better defined or extended target areas at all three prospects and intersected significant uranium mineralisation.

The Clapstick Prospect forms an east-south-east trending zone parallel to the northern footwall contact of the Oenpelli Dolerite Sill. The anomalous zone has been defined by the 100 GT (grade thickness) contour (GT = ppm U_3O_8 x metres) which extends over an area of 500 x 100 metres.

RC drilling intersected significant widths of uranium mineralisation greater than 100ppm U_3O_8 largely within the dolerite towards the footwall contact. Mineralisation is open to the east towards a faulted contact with the Kombolgie Sandstone. The structural setting is considered analogous to the N147 Deposit on the adjacent West Arnhem Joint Venture with Cameco Australia. The Clapstick Prospect is considered to have significant tonnage potential for medium grade dolerite hosted mineralisation.

RC drilling at the Boomerang Prospect, which is located in the central part of the Mineral Lease, has extended the geochemically anomalous zone beneath shallow (5 – 60m) Kombolgie Sandstone cover (Figure 1).

The anomalous zone is defined by the 100 GT contour, which extends over an area of 1300 x 500 metres. Two high grade zones defined by the 500 GT contour will be targeted as a high priority in the 2011 field season.

Major structural features defined by magnetics transect the Boomerang area, including a north-south trending structure that could possibly be related to the Nabarlek Pit mineralisation.

Three RC drill traverses were completed at the Bullroarer Prospect to test the better zones of regolith anomalism identified in the region. Drilling encountered basement schist sequences which duplicated anomalism in the weathered regolith zone (from 0 – 30m depth). Further work is required to better understand the relationship between extensive regolith and underlying basement anomalism and define drill targets.

Significant intercepts from this phase of RC drilling at a 100ppm U_3O_8 cut-off grade based on independent laboratory assay results are summarised below:

Clapstick	NMLR113	2m @ 133ppm U_3O_8 from 21m 4m @ 324ppm U_3O_8 from 60m
	NMLR115	18m @ 776ppm U_3O_8 from 16m Including 11m @ 1,138ppm U_3O_8 from 21m 12m @ 791ppm U_3O_8 from 46m Including 8m @ 1,014ppm U_3O_8 from 46m
Boomerang	NMLR152	1m @ 413ppm U_3O_8 from 56m
	NMLR153	1m @ 265ppm U_3O_8 from 27m 2m @ 1,374ppm U_3O_8 from 48m
Bullroarer	NMLR118	3m @ 122ppm U_3O_8 from 11m
	NMLR119	2m @ 136ppm U_3O_8 from 6m

The 2010 geochemical drilling program has successfully defined a number of promising prospects under shallow Kombolgie Sandstone and alluvial cover within the mineral lease. A major geological, geophysical, structural and alteration review will be undertaken to identify vectors towards high-grade mineralisation to define targets for the proposed 2011 drill program.

2.3. Frome Basin (SA)

Uranium Equities Limited has consolidated a large strategic ground position totalling 2,397km^2 in one of Australia's most prospective uranium provinces, South Australia's Lake Frome district. The ground position includes the West Lake Frome Joint Venture, a $5 million farm-in agreement with Cauldron Energy Limited ("Cauldron" - ASX: CXU) covering a large uranium exploration project (Figure 2). Uranium Equities also has 100%-owned exploration tenements and exploration licence applications further consolidating the Company's strategic position along the western margin of the Frome Embayment.

The Frome Basin hosts the Beverley, Four Mile and Honeymoon sandstone-hosted uranium deposits. The ground acquired by Uranium Equities is considered to have exploration potential for similar deposits. A reconnaissance mud drilling program is currently being planned for the first year of exploration, with three traverses over the three highest priority targets. This drilling program is being designed to test structural targets along the Wertaloona Fault, using the Four Mile/Pepegoona mineralisation style as the model.

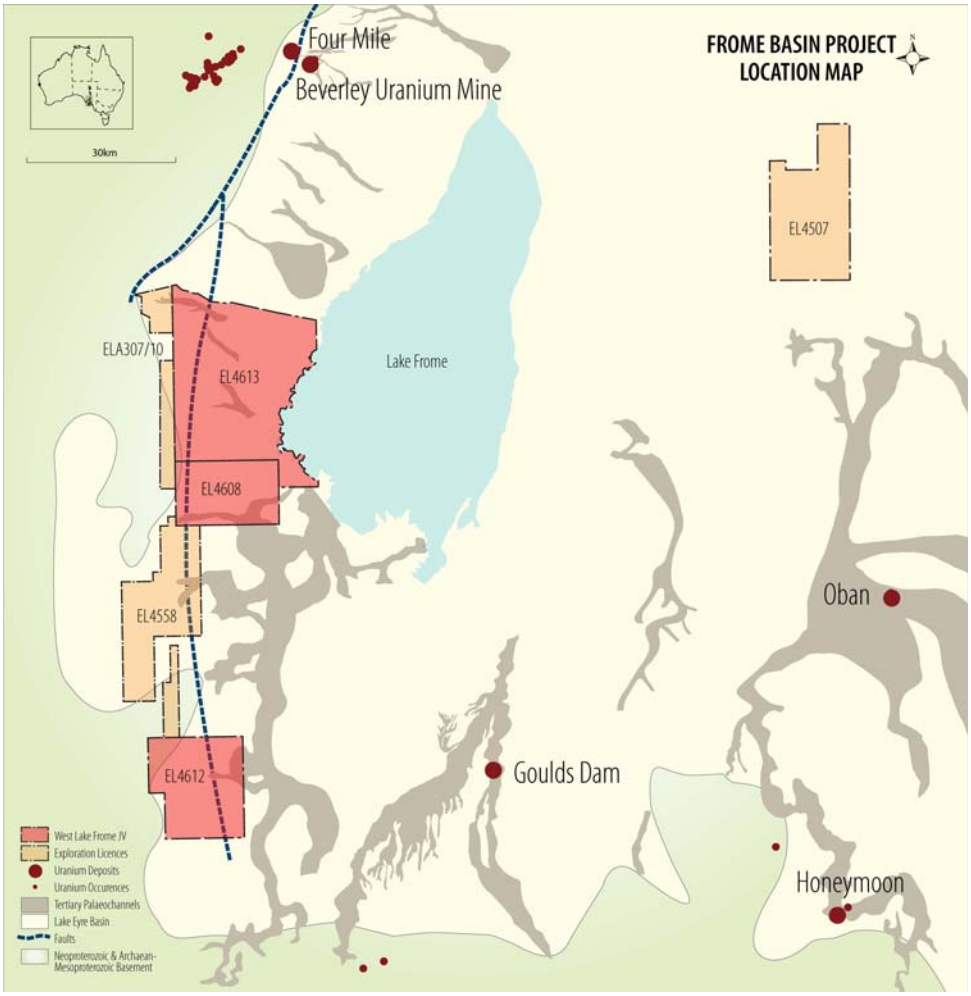

Figure 2 – Frome Basin Land Position

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

The Headwaters Project is located within the Arnhem Land Plateau along the western margin of the Proterozoic McArthur Basin. The project which is being funded by Vale Exploration Pty Ltd ("Vale"), a wholly owned Australian subsidiary of Vale S.A, under a JV agreement.

A heli-assisted diamond drilling program was completed targeting Westmoreland-style mineralisation. Laboratory assays from selected intervals are pending.

2.5. Lake Blanche (SA)

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 6,074km^2. 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.

The ongoing work program has been disrupted by wet weather conditions in the mid-north of South Australia. Work heritage clearances and rotary-mud drilling has been postponed until 2011.

2.6. Marla and Oodnadatta Projects

Uranium Equities has applied for two large exploration landholdings in the north of South Australia, covering a total area of 13,963km^2. The primary target is large, low cost, sandstone hosted uranium mineralisation. The regions were targeted as they show similarities in geological setting to the Frome Basin but have not been the focus of the same extensive investigations.

Offers to grant the tenements have been received from the Department of Primary Industry & Resources South Australia (PIRSA), and Uranium Equities has accepted the licence conditions. The Company expects the licence applications to be granted in the first quarter of 2011.

3.0 CORPORATE

The Group's cash balance at the end of the quarter was $9.7 million inclusive of a $1.8 million performance bond against Nabarlek rehabilitation obligations. Note $3.2 million has been received and held on account from Cameco as part of earn in expenditure on the PhosEnergy Process. Refer Appendix 5B for further information.

Bryn Jones
Managing Director
Mobile: +61 (0) 412 577 406

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_3O_8). 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.