

23 July 2012

Uranium Resources plc ('Uranium Resources' or 'the Company')

High-grade intercepts reported from Mtonya Uranium Exploration Programme, Tanzania

Uranium Resources plc, the AIM listed uranium exploration company, is pleased to provide a positive update on the ongoing 20,000 m drilling programme at its 100%-owned Mtonya uranium project ('Mtonya') in southwestern Tanzania.

Highlights

- Significant drill intercepts at Mtonya confirm continuity of uranium mineralisation in Tier 1 roll-fronts at depths between 120 m and 220 m;
- The demonstrated extent of the Tier 1 redox interface is well over 3 km where three continuous, overlapping roll-fronts have been identified;
- Seventy wide-spaced diamond drillholes totaling approximately 16,500 m completed to date over Tier 1;
- Twenty drillholes intersected uranium mineralisation and sixteen drillholes encountered grades over 100 ppm U₃O₈;
- Significant uranium intercepts from latest drillholes include:
 - 992 ppm U₃O₈ over 1.0 m from 145.3 m in Hole 081
 - 1,869 ppm U₃O₈ over 0.8 m from 157.8 m in Hole 090
 - 841 ppm eU₃O₈ over 1.3 m from 174.1 m in Hole 097
 - 650 ppm eU₃O₈ over 1.8 m from 68.0 m in Hole 208
 - 447 ppm eU₃O₈ over 1.0 m from 30.7 m in Hole 207
 - 335 ppm eU₃O₈ over 1.8 m from 142.2 m in Hole 095
 - 361 ppm eU₃O₈ over 1.3 m from 103.2 m in Hole 099
 - 275 ppm eU₃O₈ over 3.7 m from 127.3 m in Hole 110
 - 310 ppm eU₃O₈ over 3.2 m from 54.0 m in Hole 203

Uranium Resources Managing Director Alex Gostevskikh said, "The recent results further validate our exploration model for Mtonya where we are exploring for a significant sandstone-hosted deposit amenable to in-situ recovery. In addition to certain signature characteristics common for all roll-front deposits, such as redox interface behaviour, composition of the sedimentary rocks and geochemical patterns, we now observe mineralised roll-front geometries and tenors that are similar to sandstone-hosted uranium deposits in Wyoming's Powder River Basin and Wind River Basin where Cameco and Uranium One operate in-situ recovery facilities. These observations provide a strong reinforcement to the Company's assessment of the prospectivity of the Luwegu Basin and all of southwestern Tanzania

for sandstone-hosted deposits amenable to in-situ recovery, the lowest-cost and environmentally sound method of uranium extraction.

Our drilling campaign has been progressing well ahead of schedule and under budget and we are on course to define a maiden JORC-compliant resource by Q1 2013.

We are also pleased to note the positive developments surrounding Uranium One's Nyota Project and its full support by the Tanzanian government and specifically the Ministry for Natural Resources and Tourism, which fully recognises the vital importance of sustainable development in the Ruvuma region."

The Company's drilling programme at Mtonya continues to deliver positive results, with seventy diamond drillholes totaling approximately 16,500 m completed to date at Mtonya. Three drill rigs are currently operating at the project and, as previously announced, the Board expects a fourth rig to be mobilised in August 2012.

Drilling at Mtonya is currently targeting the Tier 1 mineralisation where three continuous roll-fronts have been identified. The mineralised redox interface of Tier 1 has now been traced over a distance of 3km. The three stacked roll-fronts coalesce and overlap to produce wide and continuous areas of uranium mineralisation that remain open along strike to the south and to the north. The deeper Tier 2 and Tier 3 uranium mineralisation continue to be valid exploration targets for future drilling.

The Company is now executing in-fill drilling to continue the improvement in grades and thickness in the Tier 1 mineralisation and define a maiden JORC compliant resource by the end of Q1 2013. The Company is sampling and assaying along the entire depth of drillholes in addition to downhole gamma-logging to ensure the reliability and accuracy of the drilling data. It is noted that the initial gamma readings in their current interpretation may significantly underestimate uranium grades.

The latest drilling demonstrates the remarkable similarities of Mtonya with the roll-front deposits found in the Wind River Basin and Powder River Basin in Wyoming, USA in tenor and the roll-front widths and thicknesses.

Table 1. Significant uranium intercepts from Tier 1 drilling programme:

Hole	Longitude	Latitude	From	To	Length	eU3O8
DH 016	36.518	-10.549	212.5 m	213.6 m	1.1 m	138 ppm*
DH 081 ⁽¹⁾	36.528	-10.526	136.3 m	137.3 m	1.0 m	377 ppm*
and			140.3 m	142.3 m	2.0 m	129 ppm*
and			143.3 m	148.3 m	5.0 m	317 ppm*
including			145.3 m	146.3 m	1.0 m	992 ppm*
DH 082 ⁽¹⁾	36.526	-10.531	142.4 m	143.4 m	1.0 m	294 ppm*

and			147.1 m	148.0 m	0.9 m	237 ppm*
DH 088	36.529	-10.528	167.3 m	168.3 m	1.0 m	110 ppm*
DH 090 ⁽¹⁾	36.526	-10.530	123.0 m	124.2 m	1.2 m	210 ppm*
and			151.4 m	152.2 m	0.8 m	133 ppm*
and			155.2 m	158.6 m	3.4 m	497 ppm*
including			157.8 m	158.6 m	0.8 m	1,869 ppm*
DH 092 ⁽¹⁾	36.525	-10.531	128.7 m	130.7 m	2.0 m	375 ppm*
including			128.7 m	129.7 m	1.0 m	645 ppm*
DH 028	36.517	-10.547	115.3 m	116.8 m	1.5 m	243 ppm
and			135.6 m	136.6 m	1 m	112 ppm
DH 095	36.525	-10.532	142.2 m	144.0 m	1.8 m	335 ppm
and			156.8 m	157.8 m	1 m	102 ppm
DH 096	36.525	-10.532	138.9 m	139.9 m	1 m	264 ppm
DH 097	36.526	-10.532	130.7 m	131.80 m	1 m	184 ppm
and			169.5 m	170.9 m	1.4 m	128 ppm
and			172.6 m	176.2 m	3.6 m	558 ppm
including			174.1 m	175.4 m	1.3 m	841 ppm
DH 099	36.525	-10.533	67.1 m	68.1 m	1 m	138 ppm
and			75.1 m	76.3 m	1.2 m	109 ppm
DH 099	36.525	-10.533	101.3 m	102.8 m	1.5 m	188 ppm
and			103.2 m	104.5 m	1.3 m	361 ppm
DH 110	36.53	-10.524	122.1 m	123.1 m	1 m	142 ppm
And			127.3 m	131.0 m	3.7 m	275 ppm
including			128.3 m	129.2 m	0.9 m	591 ppm
DH 120	36.529	-10.525	143.8 m	145.3 m	1.5 m	141 ppm
DH 121	36.53	-10.525	101.8 m	102.8 m	1 m	104 ppm
and			135.7 m	137.3 m	1.6 m	229 ppm
DH 199	36.517	-10.547	96.1 m	97.4 m	1.3 m	180 ppm
DH 201	36.519	-10.546	99.0 m	100.0 m	1 m	112 ppm
and			128.7 m	130.2 m	1.5 m	151 ppm
DH 202	36.519	-10.547	24.7 m	26.2 m	1.5 m	141 ppm
DH 203	36.52	-10.545	29.7 m	31.4 m	1.7 m	309 ppm
and			54.0 m	57.2 m	3.2 m	310 ppm
including			54.9 m	55.9 m	1 m	593 ppm
and			58.1 m	59.9 m	1.8 m	180 ppm
DH 206	36.52	-10.544	29.2 m	30.2 m	1 m	183 ppm
and			54.7 m	57.1 m	2.4 m	161 ppm
DH 207	36.521	-10.545	29.6 m	32.2 m	2.6 m	260 ppm
including			30.7 m	31.7 m	1 m	447 ppm

and			65.1 m	66.5 m	1.4 m	131 ppm
and			67.7 m	68.7 m	1 m	120 ppm
and			77.4 m	78.4 m	1 m	101 ppm
DH 208	36.521	-10.544	4.1 m	5.2 m	1.1 m	160 ppm
and			66.4 m	71.7 m	5.3 m	498 ppm
including			68.0 m	69.8 m	1.8 m	650 ppm
and			75.1 m	76.1 m	1 m	107 ppm
and			78.3 m	79.5 m	1.2 m	118 ppm
and			89.3 m	90.9 m	1.6 m	158 ppm
and			92.3 m	93.8 m	1.5 m	167 ppm
DH 209	36.521	-10.544	71.2 m	74.4 m	3.2 m	179 ppm
and			101.4 m	102.6 m	1.2 m	114 ppm

Notes to table:

(1) U3O8 figures updates for assay results from previously reported gamma-log data.

* Assays based on core samples analysed by ALS Global (Vancouver).

Only intercepts above 100 Grade Thickness are shown. Grade Thickness is the product of the grade and true thickness of intercepted mineralisation.

About Mtonya

The Company's 100% owned Mtonya project is situated about 60 km south of Nyota, a significant uranium deposit currently developed by Uranium One.

Mtonya is interpreted to be a classic sandstone-hosted roll-front deposit with remarkable similarities to the deposits of Wyoming, USA and Chu-Sarysu, Kazakhstan.

To date, Mtonya has demonstrated continuous uranium mineralisation in stacked roll-fronts in Triassic arkoses, which is expected to be amenable to in-situ recovery.

The Company's ongoing exploration programme is expected to generate sufficient data to delineate a maiden resource at Mtonya by the end of Q1 2013.

Assaying and QA/QC

The Company is using a Mount Sopris' Matrix gamma-logging system to ensure proper instrument calibration and establish the framework for disequilibrium adjustments. The disequilibrium factor (DEF) is used to adjust the grade obtained from measurements by a gamma-ray probe ('eU3O8') and to provide rapid estimates for the uranium content in the rock.

In addition to gamma-ray downhole surveys, Uranium Resources uses the most reliable methods of quantifying uranium mineralisation by sampling half-core and subjecting the samples to the ME-MS41 analysis at the ALS Global laboratory in Vancouver, BC, Canada.

In accordance with industry standards, the assayed samples include certified standards and duplicates. Analytical results are routinely subjected to statistical review.

Competent Person's Declaration

The information in this statement that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information reviewed by Alex Gostevskikh, Managing Director of Uranium Resources plc, who is a Member of the Mining and Metallurgical Society of America. Mr. Gostevskikh has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 as a qualified person under the AIM Note for Mining, Oil and Gas Companies. Mr. Gostevskikh consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

****ENDS****

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About Uranium Resources

Uranium Resources plc is an AIM listed exploration and development company. It is the Company's strategy to advance its existing assets and strengthen its portfolio via opportunistic acquisition. Uranium Resources has uranium exploration licences in the highly prospective Karoo Basins in southwestern Tanzania.