

**Uranium Resources plc (“Uranium Resources” or “the Company”)**  
**New Uranium discovery increases prospectivity of Mtonya region in Tanzania**  
22<sup>nd</sup> October 2007

**Highlights:**

- Drilling and trenching at Mtonya identifies new high grade uranium anomalies at Grandfather prospect, 5km north of Henri
- Trenching at Grandfather has revealed high grade surface mineralisation over a strike of 1.4km
- Uranium mineralisation now continuing over a 7 kilometre trend
- Peak trench results include **1.2 metres at 7703ppm U<sub>3</sub>O<sub>8</sub> and 0.8 metres at 1035ppm U<sub>3</sub>O<sub>8</sub>**
- First drilling at Moysten prospect finds high grade uranium including:
  - 3m @ 863ppm from U<sub>3</sub>O<sub>8</sub> from 46m
  - 3m @ 750ppm from U<sub>3</sub>O<sub>8</sub> from 47m
  - 2m @ 355ppm from U<sub>3</sub>O<sub>8</sub> from 32m
- Drilling has recommenced on the project and will continue throughout October
- Helicopter supported reconnaissance will start again to continue regional evaluation
- Farm-in partner Western Metals to spend A\$3.5million on exploration in Tanzania over the next 15 months

Uranium Resources Plc, the AIM listed uranium exploration company has identified a new uranium area on the Grandfather prospect and increased its confidence in previously identified anomalous areas, following the receipt of trenching results and the first assay results from the August field programme. The results have been received for the first 23 holes out of the 40 hole programme and trench results for 5 of 15 trenches excavated during August.

Trenching of the Grandfather prospect has upgraded this prospect to a priority drill target for the Company, having delivered high-grade surface mineralisation over a strike of 1.4 kilometres. Further trenching is planned for October to more closely define this new high grade area. This prospect is expected to be drilled in 2008 following the construction of an adequate road to establish drill access.

Additionally broad spaced drilling has now tested the Para, Henri and Moysten anomalies, with the latest results continuing to identify widespread sub-surface uranium mineralisation for all the prospects. The Moysten prospect area returned high grade results and extends the strike which now covers a circa 7km trend.

URA Director James Pratt said, “These results continue to indicate the potential for Mtonya to host a significant uranium deposit. Both the trenching and drilling have yielded exciting results which continue to reinforce our confidence level in what is rapidly being recognised as a new uranium district. We are also very pleased that farm-in partner Western Metals has committed to on-going aggressive exploration of the southern Tanzanian projects, with an anticipated exploration expenditure of \$A3.5 million over the next 15 months.”

Drilling and trenching recommenced in early October and will continue for the remainder of the month. Helicopter supported reconnaissance will commence later in October to evaluate new anomalies in the Mtonya, Ruhuhu and South Selous (formerly Tunduru) project areas.

## **August Trenching Results**

### *Summary*

Five trenches (T23 to T28) at Grandfather were excavated to evaluate high surface scintillometer readings and anomalous surface grab samples (4.64% U<sub>3</sub>O<sub>8</sub> and 0.20% U<sub>3</sub>O<sub>8</sub>). The trenches have defined **1.4 kilometres** of mineralisation along the strike of the Grandfather anomaly. This was one of the strongest anomalies based on the historic airborne radiometrics, but distance from the camp at Henri and river crossings has, up to now, frustrated attempts to locate the best part of the anomaly on the ground. However, high resolution airborne and surface radiometric surveys completed in June 2007 have lead to this successful trenching programme. The trench locations (T23 to T28) are shown on Diagram 1 on Western metals announcement ([www.westernmetals.com.au](http://www.westernmetals.com.au)) and a summary of intervals are contained in Table 2.

### *Sampling Method and Results*

The trenches were generally excavated to 1.2 metres in depth. Vertical channels were cut at each 2 metre interval along the trenches and sampled to geological boundaries.

The results received to date show high grade uranium mineralisation in all trenches, with Trench 25 (T25) giving a peak interval of **1.2 metres at 7,723 ppm U<sub>3</sub>O<sub>8</sub> including 0.4 metres at 2.13% U<sub>3</sub>O<sub>8</sub>**. Results are pending for several further samples in these trenches.

Visual uranium mineralisation was identified in several of the trenches. Please refer to Western metals announcement for Photograph 1 ([www.westernmetals.com.au](http://www.westernmetals.com.au)) which shows the distribution of uranium minerals highlighted by ultraviolet light in a hand specimen in a 5cm field of view.

## **Drilling Results**

### *Summary*

The RC drilling programme conducted in August consisted of 40 holes totalling 2,545 metres. Drill hole depths were limited to approximately 50 metres. Holes were focused on testing the Para, Moysten and Henri prospects.

Please refer to Western Metals announcement ([www.westernmetals.com.au](http://www.westernmetals.com.au)) where Diagram 1 shows the drill hole collar locations for all of the drilling to the end of August. The hole locations are coloured by maximum U<sub>3</sub>O<sub>8</sub> grade. This has been overlain on airborne radiometric survey uranium data clipped to the top 2% data range.

### *Description and Results*

The August drilling has shown high grades from Para to the south through to the Moysten anomaly 3 kilometres to the north.

Drilling at Moysten was a single traverse of wide spaced holes across the radiometric anomaly. **Seven of the nine holes drilled returned U<sub>3</sub>O<sub>8</sub> values in excess of 100 ppm with three containing intervals greater than 300ppm U<sub>3</sub>O<sub>8</sub> .** The peak interval achieved at Moysten was **3 metres at 863 ppm U<sub>3</sub>O<sub>8</sub>** from 41 metres depth. Further broad spaced drilling at Para and Henri extended the area of mineralisation around the initial anomalies discovered by the June field programme.

The drilling on the project area has been of a broad spaced reconnaissance design to achieve enough data coverage for identification of high grade zones and controls on mineralisation. Drilling depths have been limited to approximately 50 metres to ensure the maximum areal coverage in each campaign. The Company believes that potential for mineralisation continues below 50 metres depth and notes the success of Mantra Resources in drilling below this depth to the north of Mtonya at Mkuju River. However the Company supports Western Metals strategy of maximising areal coverage during a limited drilling season to establish the most prospective areas at Mtonya.

## **Future Programme**

Drilling recommenced in early October. The programme will continue reconnaissance spaced testing of the area and also undertake some deeper holes to provide stratigraphic information and limited testing for deeper mineralised zones. In addition to the drilling, field crews are undertaking further trenching, sampling and mapping on the Grandfather, Moysten and Para anomalies.

A helicopter supported reconnaissance crew is being deployed to evaluate further radiometric anomalies within the Mtonya and Ruhuhu project areas.

**Table 1: Drill Results Significant Intersections > 100ppm U<sub>3</sub>O<sub>8</sub>**

Hole ID	Prospect	Collar Co-ordinates (WGS84)		Intersection		
		Longitude (Deg. E)	Latitude (Deg. N)	From (metres)	Length (metres)	U <sub>3</sub> O <sub>8</sub> (ppm)
<b>MRC033</b>	Para	36.52717	-10.5539	9	<b>2</b>	<b>375</b>
				41	<b>3</b>	<b>183</b>
<b>MRC037</b>	Para	36.52819	-10.5551	41	<b>2</b>	<b>215</b>
<b>MRC038</b>	Para	36.52419	-10.5541	10	<b>1</b>	<b>960</b>
				34	<b>1</b>	<b>120</b>
				39	<b>6</b>	<b>287</b>
<b>MRC039</b>	Henri	36.52325	-10.5507	16	<b>3</b>	<b>447</b>
				31	<b>2</b>	<b>130</b>
				37	<b>6</b>	<b>178</b>
<b>MRC043</b>	Moysten	36.54125	-10.5216	32	<b>2</b>	<b>355</b>
<b>MRC044</b>	Moysten	36.53989	-10.5235	46	<b>3</b>	<b>863</b>
<b>MRC046</b>	Moysten	36.5388	-10.5259	14	<b>1</b>	<b>110</b>
				25	<b>1</b>	<b>100</b>
				31	<b>4</b>	<b>210</b>
<b>MRC048</b>	Moysten	36.53859	-10.5288	19	<b>3</b>	<b>100</b>
<b>MRC049</b>	Moysten	36.53907	-10.5296	8	<b>1</b>	<b>150</b>
				25	<b>1</b>	<b>130</b>
				33	<b>1</b>	<b>120</b>
<b>MRC050</b>	Moysten	36.53922	-10.5311	42	<b>1</b>	<b>140</b>
<b>MRC051</b>	Moysten	36.53862	-10.5279	47	<b>3</b>	<b>750</b>
<b>MRC052</b>	Henri	36.52323	-10.5496	10	<b>1</b>	<b>220</b>

**Table 2: Grandfather Prospect Trench Results >100 ppm U<sub>3</sub>O<sub>8</sub>**

Trench ID	Channel Number	Trench Co-ordinates (WGS84)		Interval		
		Longitude (Deg. E)	Latitude (Deg. N)	From (metres)	Length (metres)	U <sub>3</sub> O <sub>8</sub> (ppm)
<b>T23</b>	3	36.5577	-10.5035	0	<b>1.2</b>	<b>485</b>
<b>T24</b>	2	36.5538	10.5044	0.4	<b>0.4</b>	<b>110</b>
	4			0.6	<b>0.6</b>	

						<b>110</b>
<b>T25</b>	0	36.5508	10.5058	0.4	<b>0.8</b>	<b>325</b>
	2			0	<b>1.2</b>	<b>370</b>
	6			0	<b>1.2</b>	<b>7,723</b>
<i>Including</i>				<i>0.8</i>	<i>0.4</i>	<i>21,321</i>
	8			0	<b>1.1</b>	<b>160</b>
	10			0	<b>1</b>	<b>145</b>
<b>T26</b>	4			0	<b>1</b>	<b>135</b>
	6			0	<b>1.2</b>	<b>440</b>
	8			0	<b>1.2</b>	<b>323</b>
	10	36.5507	10.5065	0	<b>0.8</b>	<b>180</b>
<b>T27</b>	4	36.5503	10.5069	0.4	<b>0.8</b>	<b>230</b>
	7			0	<b>0.8</b>	<b>1,035</b>
	8			0	<b>1.2</b>	<b>130</b>
<b>T28</b>	4	36.5463	10.5093	0	<b>1.2</b>	<b>747</b>
<i>Including</i>				<i>0.8</i>	<i>0.4</i>	<i>1,650</i>
	6			0	<b>1.2</b>	<b>370</b>

Notes on Tables:

All drilling is vertical. Samples have been collected by riffle splitting dry intervals and representative tube sampling of wet intervals. Samples have been analysed by ICP using laboratory method ME-ICP61s by ALS Chemex laboratory Perth Australia. Samples greater than 10,000 ppm U<sub>3</sub>O<sub>8</sub> have been analysed by XRF using method ME-XRF10s. Certified reference standards and blanks have been included by Western Metals in addition to laboratory control standards. All results are in U<sub>3</sub>O<sub>8</sub> ppm with analysis method accuracy quoted at circa 10 ppm U<sub>3</sub>O<sub>8</sub>. Co-ordinates are WGS84 and have been measured by hand held GPS.

All intersection lengths are estimated to be true width of mineralisation based on local geological observation.

This information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr James Pratt who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Pratt is employed by Uranium Resources plc. Mr Pratt 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'. Mr Pratt consents to the inclusion in the report of the matters based on his information in the form and context in which it appears

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**Notes to editors**

Uranium Resources plc is an AIM listed uranium exploration and development company focused in Southern Africa. The Company has primarily concentrated on expanding and developing its portfolio of uranium licences in the highly prospective Karoo Basin in Southern Tanzania where it currently has a land package in excess of 13,500 sq km.