

6 September 2011

## **ADDITIONAL BREAKTHROUGH ON TUBAS RED SAND BENEFICIATION**

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### **KEY POINTS**

- **Removal of slimes and ultra-fine particles prior to scrubbing and processing through the Schauenburg pilot plant reduces power requirements and improves recoveries**
- **The trial resulted in an improved uranium upgrade factor of 7.9, which will now allow the cost effective processing of even lower grade sand**
- **This breakthrough will increase the size of the available resource that could be economically beneficiated with the Schauenburg process**
- **The Tubas Red Sand deposit is now being re-interpreted with additional sand intersections from the Tubas Palaeochannel resource to increase the size of the existing 4.9 Mlb JORC compliant resource**
- **A significantly larger sand resource together with the application of this technology could lead to a standalone project**

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**Advanced stage uranium explorer Deep Yellow Limited** (ASX: DYL) is pleased to announce that its wholly owned subsidiary Reptile Uranium Namibia (Pty) Ltd (RUN) has made a further breakthrough on the upgrading of its unique, low grade Tubas Red Sand (TRS) deposit.

Deep Yellow Managing Director Greg Cochran said this was another exciting step towards the potential establishment of the Tubas Red Sand as a standalone project. "These results mean that we can reduce the cut-off grade of the deposit, thereby increasing the size of the resource. A larger resource, combined with this cost effective beneficiation process, is a major step forward as we continue to search for an opportunity to bring forward the commencement of uranium production from our portfolio of advanced projects in Namibia."

"We have already re-interpreted the borehole logs from parts of the Tubas Palaeochannel deposit known to contain sand and unconsolidated sediments and Geomine Consulting Namibia is working to provide us with a new JORC compliant resource of this sub-set for the TRS deposit," he added.



**Background**

Previous research and pilot plant separation and laboratory screening testwork (see ASX release dated 6 April 2011) conducted at RUN's laboratory facilities using a bulk sample taken from a TRS trench showed that the uranium content of the -125 µm to +20 µm reject fraction remained remarkably constant with varying head grade. This had the effect of diminishing potential uranium recoveries to the -20 µm concentrate at lower head grades. In the quest to improve recovery it was decided to remove the -20 µm slimes and ultra-fine particles by using a Schauenburg hydrocyclone prior to scrubbing as this is a well-tested effective method of increasing efficiencies and reducing energy requirements.

**Testwork**

A low grade TRS trench sample (140 ppm U<sub>3</sub>O<sub>8</sub>) was used in the test. After the initial hydrocyclone treatment the de-slimes underflow (i.e. oversize material) was subsequently scrubbed and manually screened at 125 µm with the undersize separated again using a Schauenburg hydrocyclone. The de-slimes overflow was combined with the pre-scrubbing overflow and the barren -125 µm to +20 µm collected for further testwork to remove the remaining carnotite adhering to the surface of the particles.

This optimized scrubbing method reduced the total mass of uranium remaining in the barren -125 µm to +20 µm size fraction to 8.2%, a significant improvement from the initial pilot plant testwork.

Mass pull of the TRS material to the -20 µm uranium bearing fraction can be highly variable and during this testwork only 10.4% was reported to the -20 µm size fraction, resulting in an improved uranium concentration upgrade factor of 7.9 compared to the previous 6.9.

These results demonstrate that even lower grade sand-type ores (below 150 ppm U<sub>3</sub>O<sub>8</sub>) could potentially be economically beneficiated. This would allow a reduction in the cut-off grade to around 60 ppm for the TRS deposit which would result in a significant increase in the resource base, as can be seen from the tables below.

The existing Tubas JORC Resource estimate totals 77.3 Mt at 228 ppm U<sub>3</sub>O<sub>8</sub> for 17,612 tonnes – (38.9 Mlbs) U<sub>3</sub>O<sub>8</sub> at a 100 ppm U<sub>3</sub>O<sub>8</sub> cut-off and the TRS JORC Resource estimate totals 13.9 Mt at 160 ppm U<sub>3</sub>O<sub>8</sub> for 2,217 tonnes – (4.9 Mlbs) U<sub>3</sub>O<sub>8</sub> at a 100 ppm U<sub>3</sub>O<sub>8</sub> cut-off.

Cut-off Grade (ppm U <sub>3</sub> O <sub>8</sub> )	Grade (ppm U <sub>3</sub> O <sub>8</sub> )	Tonnes (millions)	U <sub>3</sub> O <sub>8</sub> (tonnes)	U <sub>3</sub> O <sub>8</sub> (Mlbs)
<b>Tubas Palaeochannel Deposit</b>				
50	126	209.7	26,499	58.42
60	149	159.12	23,787	52.44
100	228	77.28	17,612	38.83
140	325	41.64	13,537	29.84
200	455	22.79	10,369	22.86
<b>Tubas Red Sand Deposit</b>				
50	99	42.2	4,191	9.23
100	160	13.9	2,217	4.88
150	221	5.5	1,208	2.66

**Ends**



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For further information on the Company and its projects  
- visit the website at [www.deepyellow.com.au](http://www.deepyellow.com.au)

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### **About Deep Yellow Limited**

Deep Yellow Limited (DYL) is an ASX-listed, advanced stage uranium exploration Company with extensive operations in the southern African nation of Namibia and in Australia. It also has a listing on the NSX.

DYL's primary focus is in Namibia where its operations are conducted by its 100% owned subsidiary Reptile Uranium Namibia (Pty) Ltd (RUN). Its flagship is the Omahola Project currently under Pre-Feasibility Study with concurrent resource drill-outs on the high grade Ongolo Alaskite – INCA trend.

In Australia the Company is focused on resource delineation of mid to high grade discoveries in the Mount Isa district in Queensland and also owns the Napperby Uranium Project and numerous exploration tenements in the Northern Territory.

### **Compliance Statements**

*The information in this report that relates to Exploration Results and to Mineral Resources or Ore Reserves is based on information compiled by Dr Leon Pretorius a Fellow of The Australasian Institute of Mining and Metallurgy. Dr Pretorius 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'. Dr Pretorius consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

*Where eU<sub>3</sub>O<sub>8</sub> is reported it relates to values attained from radiometrically logging boreholes with Auslog equipment using an A675 slimline gamma ray tool. All probes are calibrated either at the Pelindaba Calibration facility in South Africa or at the Adelaide Calibration facility in South Australia.*