

### **ASX Announcement**

**ASX: DYL** 

12 September 2016

# **Tumas Project: Marenica Technology Licence Agreement Executed**

#### **KEY POINTS**

- Deep Yellow Ltd ("DYL") and Marenica Energy Ltd ("MEY") have executed a binding Technology Licence Agreement for the application of the *U-pgrade<sup>TM</sup>* process on the Company's Tumas Project in Namibia.
- The commercialisation agreement follows the recent conclusion of a successful metallurgical testwork program and aims to share the economic benefit of the resource/technology combination 75/25 (DYL/MEY) under various conditions.
- The testwork program demonstrated that processing Tumas ore through the *U-pgrade<sup>™</sup>* process has the potential to reject up to 98% of the mass whilst recovering over 82% of the uranium, thus presenting the potential to dramatically reduce both capital and operating costs and enabling it to be developed at a lower uranium incentive price.
- The companies are already in an advanced stage of planning a fast track feasibility study which would include metallurgical variability testwork and a resource expansion drilling program.

Advanced stage uranium explorer **Deep Yellow Limited (ASX: DYL)** is pleased to announce that it has entered into a binding Technology Licence Agreement ("TLA") with Marenica Energy Ltd ("MEY") giving it the option to use MEY's *U-pgrade*<sup>TM</sup> process on its Tumas Project located in Namibia. The agreement is the culmination of over three years of engagement with MEY and allows DYL to rapidly move into the next phase of project development, being further metallurgical testwork, a resource expansion drilling program and a fast track feasibility study program.

The TLA aims to share the economic benefit of the combination of the resource and technology in a ratio of 75/25 (DYL/ MEY) and comprises initially a series of lump sum payments and then ongoing fees once the *U-pgrade™* plant has met specific performance indicators. The ongoing fee varies with sales price and is nominal if uranium is sold at a price below US\$50/lb and is capped at US\$4.80/lb if the uranium price received exceeds US\$80/lb. As an example, the fee will be US\$2.60/lb at US\$60/lb.

"We have been carefully managing numerous parallel elements in regard to the Tumas Project and have long been confident that those efforts would soon be rewarded" DYL's Managing Director Greg Cochran said. "This landmark agreement giving us access to the *U-pgrade™* process will enable us to accelerate the Project's development leveraging off the potential to capture significant cost benefits as a result of the application of this technology."

#### **ENDS**



# **Key Terms of the TLA**

- The agreement gives DYL the option to use MEY's *U-pgrade*<sup>TM</sup> process in a plant sourcing ore from any of the Company's Namibian EPLs, giving it full operational flexibility;
- The focus will be on the delivery of the relatively advanced Tumas Project;
- DYL will make three lump sum payments which are back-loaded and triggered on the delivery
  of specific project outcomes during the feasibility, development and commissioning phases;
- Ongoing Licence Fees (which are considered fair for both parties) range from 2% to 6% of price received resulting in a 75/25 (DYL/MEY) sharing of the Tumas Project's NPV;
- The plant must achieve specific performance indicators and there is a detailed and prescriptive process in order for MEY to receive its Licence Fees;
- MEY personnel will be an integral part of the Tumas project development team;
- DYL will fund all project development expenditure including costs associated with *U-pgrade<sup>TM</sup>* testwork.

# **The Tumas Project**

The Tumas palaeochannel straddles the Company's two wholly owned EPLs (3496 and 3497 – See Figures 1 and 2) and is divided into three zones. The Tumas deposit has a current 2004 JORC Compliant Resource of 14.8Mt at 366 ppm  $U_3O_8$  for 11.9 Mlbs  $U_3O_8$  (see Appendix 1 for JORC Resource and Competent Persons' Statement). However, the palaeochannels have extensive upside potential as demonstrated by DYL's recent exploration success. (See ASX release dated 16 July 2015 titled "Enhanced Palaeochannel Prospectivity" for more information.)

An infill drilling program completed within Zone 1 of the Tumas resource at the end of 2014 and a sophisticated geophysical modelling exercise in 2015 provided confidence in the Tumas deposit and its extended palaeochannel. This enabled the decision to proceed with MEY and with the first phase metallurgical testwork program. Bulk samples were excavated from the infill drilling area in December 2015 and January 2016 and sent to Perth for this purpose.

The metallurgical testwork program was successfully completed on time at the end of June 2016 and the final report has been received from Marenica and is being reviewed. The final results reflect and reinforce the interim results achieved (see DYL ASX releases dated 20 May, 31 May and 1 July 2016) which gave DYL the confidence to finalise the TLA.

The interim results determined that more than 95% of the carbonate minerals could be removed with a loss of less than 5% of the uranium whilst the de-sliming step rejected ~27% of the mass as fine particulate material. These results demonstrated that the critical carbonate and de-slime removal steps of the *U-pgrade*<sup>TM</sup> process work on the Tumas samples provided and that use of the process would enable a significant reduction in the mass being handled with a minor loss of uranium, allowing the upgrading of uranium into a low mass concentrate.

In fact the results indicated that a concentrate containing less than 3% of the ore feed mass grading greater than 13,000 ppm  $U_3O_8$  and containing greater than 82% of the uranium can be generated from the Tumas samples by MEY's *U-pgrade*<sup>TM</sup> process.

This presents two project options for Tumas – the final concentrate produced by U- $pgrade^{TM}$  could be processed on site using conventional acid leaching and refining technology to produce yellowcake. Alternatively the concentrate produced could be safely and cost-effectively transported to a third party for final processing (see Figure 3).



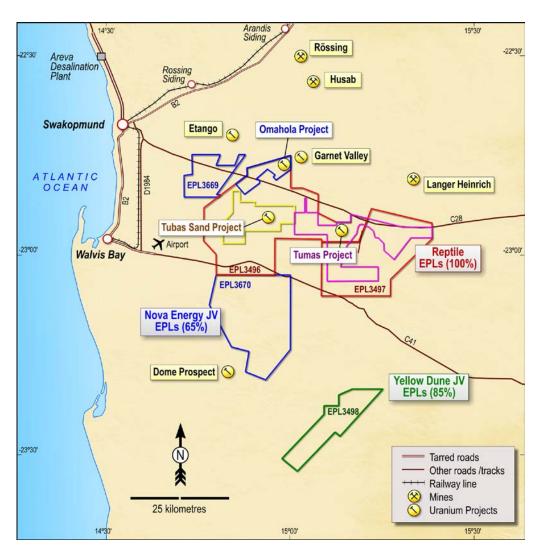


Figure 1: Namibian Locality Map Showing Position of DYL's Projects

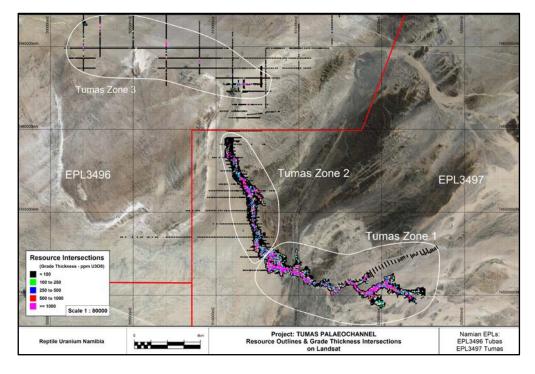


Figure 2: Tumas Project resource Outlines



# Marenica *U-pgrade*<sup>™</sup> Technology

After extensive testwork (especially on Namibian calcretes) MEY's *U-pgrade™* technology has been shown to improve the processing properties of surficial calcrete uranium ores. Both MEY and DYL believe that this improvement has the potential to dramatically reduce the capital and operating cost for processing these types of ores. (Figure 3 below shows the various steps and the effectiveness of the technology's application.)

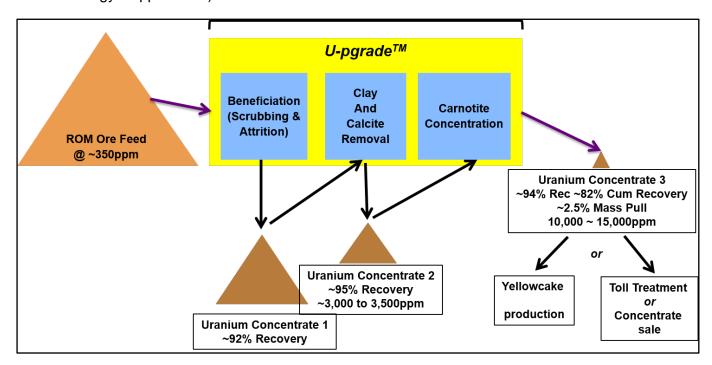


Figure 3: A Schematic Representation indicative of the Tumas Project using *U-pgrade™* Technology

#### **Next Steps**

DYL and MEY have been working together and are already well advanced in planning the next stages of the Tumas Project. The final results of the Metallurgical Testwork Program and a Tumas Resource Update will be released shortly as well as a detailed Project Schedule. The Project Schedule will consider all activities up to and including the completion of a definitive feasibility study and is likely to include:

- A phased 600 metre triple tube geological and metallurgical diamond drilling program (HQ and PQ diameter) is being planned which will inform and generate core for the second phase metallurgical testwork program.
- An extensive metallurgical variability testwork program once again conducted under the supervision of MEY at Perth-based laboratories.
- An accelerated prefeasibility study conducted in parallel with the metallurgical testwork program.
- Updating the Scoping SEIA Report which was completed and submitted to the Namibian Ministry of the Environment and Tourism in 2013.
- A resource expansion drilling program and concomitant resource update/s.
- A pilot plant test program (only if required) and a definitive feasibility study.

#### **Tumas Project Technology Licence Agreement**



As a result of the work already completed and assuming that similar results are achieved in the next phase of metallurgical testwork DYL is now confident that the Tumas Project is ideally positioned to become Namibia's next uranium mine.

DYL and MEY are looking forward with great optimism to making this a reality.

#### For further information regarding this announcement, contact:

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For further information on the Company and its projects - visit the website at <a href="https://www.deepyellow.com.au">www.deepyellow.com.au</a>

# **About Deep Yellow Limited**

Deep Yellow Limited is an ASX-listed, Namibian-focussed advanced stage uranium exploration company. It also has a listing on the Namibian Stock Exchange. Deep Yellow's operations in Namibia are conducted by its 100% owned subsidiary Reptile Uranium Namibia (Pty) Ltd.

The Company recently completed metallurgical testwork and is evaluating fast track development options for its Tumas Project which consists of surficial calcrete palaeochannel deposits which are amenable to physical beneficiation and upgrading techniques.

Deep Yellow also holds the Omahola Open Pit Alaskite Heap Leach Project on which value engineering studies are being conducted to supplement the recently completed preliminary economic analysis.



# APPENDIX 1 Tumas Project Resource Statement at Varying Cut-off Grades

	Cut-off	Tonnes	U3O8	U3O8	U3O8
Category	(ppm U3O8)	(M)	(ppm)	(t)	(MIb)
Indicated	200	14.4	366	5,300	11.6
Inferred	200	0.4	360	100	0.3
Total		14.8	365	5,400	11.9
Indicated	150	23.9	290	6,931	15.3
Inferred	150	0.6	280	168	0.4
Total		24.5	290	7,099	15.7
Indicated	100	42.5	216	9,180	20.2
Inferred	100	1.2	210	252	0.6
Total		43.7	216	9,432	20.8

#### **Tumas Project Competent Persons' Statement**

The information in this report that relates to previous Exploration Results for the Tumas Deposit is based on information compiled by Mr. Martin Hirsch, M.Sc. Geology, who is a member of the Institute of Materials, Minerals and Mining (UK) and the South African Council for Natural Science Professionals. Mr. Hirsch is the Exploration Manager for Reptile Uranium Namibia (Pty) Ltd, 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 in terms of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code 2012 Edition). Mr. Hirsch consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the Tumas Mineral Resources is based on work completed by Mr Jonathon Abbott who is a full time employee of MPR Geological Consultants Pty Ltd and a Member of the Australian Institute of Geoscientists. Mr Abbott 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 a Competent Person in terms of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code 2004 Edition') and as a Qualified Person as defined in the AIM Rules. Mr Abbott consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information relating to Tumas Mineral Resource Estimates was prepared and first disclosed under the JORC Code 2004. These have not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

#### **Forward Looking Statements**

Certain statements made in this release, including, without limitation, those concerning the results of metallurgical testwork and the impact of the U- $pgrade^{TM}$  process on the potential for the Tumas Project contain or comprise certain forward-looking statements regarding DYL's exploration operations, economic performance and financial condition. Although DYL believes that the expectations reflected in such forward-looking statements are reasonable, no assurance can be given that such expectations will prove to have been correct. Accordingly, results could differ materially from those set out in the forward-looking statements as a result of, among other factors, changes in economic and market conditions, success of business and operating initiatives, changes in the regulatory environment and other government actions, fluctuations in metals prices and exchange rates and business and operational risk management. DYL undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events.