



29 July 2016

## QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDING 30 JUNE 2016

### HIGHLIGHTS

#### Corporate:

- DYL is pleased to report a cash and liquid assets balance of \$1.6 million at the end of the quarter.
- This figure excludes the funds raised in a Share Purchase Plan that closed on 1 July 2016.
- The Share Purchase Plan raised a total of \$752,600 and resulted in the issue of 188,150,000 new shares to existing shareholders.
- These funds will allow the Company to continue to progress its promising Tumas Project in Namibia.

#### Tumas Project

- The metallurgical testwork program, supervised by Marenica Energy Ltd ("MEY"), was completed on schedule.
- As announced during the quarter, the interim results were largely in line with, and in some cases even exceeded expectations.
- The final report which will deliver the final results and conclusions from the test is currently being drafted and will be completed in August.
- Reinterpretation of the existing Tumas JORC resource is nearing completion.
- Planning for the next phase of metallurgical testwork, resource expansion and a prefeasibility study is well underway.
- A project incorporating Marenica's *U-pgrade*<sup>TM</sup> beneficiation process as an integral part of the overall flowsheet has the potential to have comparatively low capital and operating costs and an accelerated development timeline.

#### Namibian Licence Applications

- Renewal confirmations for Exclusive Prospecting Licences (EPLs) 3496 and 3497 were received during the quarter. This is the fourth renewal for these two EPLs and allows DYL to continue to progress the Tumas and Omahola Projects.
- The Namibian Ministry of Mines and Energy declined the Mining Licence Applications lodged in 2011 for the so-called INCA Project and the Tubas Red Sands Project on economic grounds.
- Realistically this has no impact on DYL because the INCA Project has been superseded by the much larger Omahola Heap Leach Project and the Tubas Sand Project is, at current prices, clearly uneconomic.
- The Tubas Sand Project was placed on hold by the Company in 2014 specifically for economic reasons.



## BUSINESS REVIEW

### TUMAS PROJECT

#### Marenica Energy Ltd U-pgrade™ Testwork Program

##### Introduction

The bench scale metallurgical testwork program being conducted under the supervision of Marenica Energy Ltd ("MEY") at the Nagrom and CSIRO Laboratories in Perth was completed on schedule. The program incorporated additional tests conducted to enhance confidence in the results. The testwork has been conducted on bulk samples that were removed from the Tumas calcrete deposit late in 2015 and early 2016. The program, designed to assess the amenability of MEY's **U-pgrade™** flowsheet (Figure 1) to Tumas's calcrete ore, achieved results that met and in some cases even exceeded expectations.

The proposed metallurgical **U-pgrade™** flowsheet, developed by Marenica, has a patent pending and DYL has executed a Confidentiality Agreement. However, the process in its simplest form involves the physical beneficiation of the sample through two key stages before moving to concentrate the remaining uranium minerals.

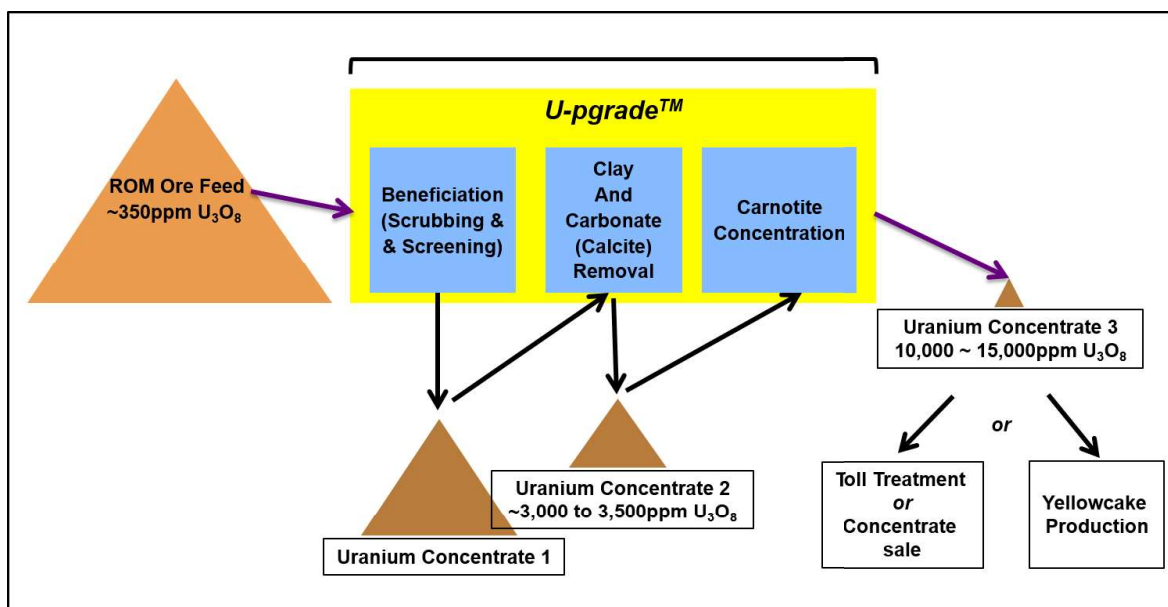


Figure 1: Marenica **U-pgrade™** Flowsheet - Schematic Representation.

Two bulk samples were excavated from the Tumas deposit and arrived in Perth at the beginning of the year for the test. The first was a higher grade medium sulphate composite ("MSC") sample and the second a slightly lower grade low sulphate composite ("LSC") sample (See Table 1).

Sample	Ca (%)	Fe (%)	Mg (%)	SO <sub>4</sub> (%)	Si (%)	U (ppm)	V (ppm)
MSC	8.9	1.4	0.79	1.4	29.2	568	200
LSC	9.7	1.1	0.67	0.03	28.5	254	100

Table 1: Nagrom Assay Results of the MSC and LSC Bulk Samples



As a first step and also throughout the program CSIRO conducted detailed mineralogical characterisation studies on the feed samples and the various product streams generated by the testwork. As a result of these extensive mineralogical analyses it was concluded that the primary uranium bearing mineral, carnotite, will be liberated in the process.

#### *Conventional Processing Issues*

Calcrete ores such as Tumas are characterised by specific carbonate minerals and fine particulate material (clays). The presence of carbonate minerals excludes the use of acid leaching due to high acid consumption and thus the conventional approach is to leach these ore types with alkali, a high temperature, slow kinetics and relatively high cost process. Also, the inclusion of fine particulate material in the ores results in materials handling issues which result in higher operating costs and reduced uranium recovery.

The successful removal of fine particulate material and carbonate minerals from a calcrete ore produces a concentrate with minimal acid consumers, delivering a suitable feed for an acid leach process. Generally, one would expect significantly faster kinetics and lower capital and operating costs with an acid leach process. Removal of the clay greatly improves a plant's materials handling characteristics, which is a significant advantage for a beneficiation process and the subsequent leach and solid/liquid separation stages.

#### *Test Results*

The interim results determined that >95% of the carbonate minerals could be removed with a loss of <5% of the uranium. The de-sliming step rejected ~27% of the mass as fine particulate material with <7% of the uranium feeding the de-slime stage. These interim results have demonstrated that the critical carbonate and de-slime removal steps of the process do work on the Tumas samples provided. Application of the process will enable a significant reduction in the mass being handled with an acceptable, minor loss of the primary mineral.

Now that the program has been completed it has been successfully demonstrated that upgrading of the uranium into a low mass concentrate is feasible. In fact, the results obtained were very encouraging as a concentrate containing less than 3% of the ore feed mass (i.e. a 3% "mass pull") was achieved. The mass balance compiled around the process concluded an overall uranium recovery of over 82% and a concentrate grade in excess of 13,000 ppm  $U_3O_8$  (i.e. 1.3%  $U_3O_8$ ).

#### *Benefits*

The table below is a theoretical example used to illustrate some of the benefits of using the **U-pgrade™** process when compared to a conventional alkali leach process.

Process	Annual ROM Tonnage	Leach Circuit Throughput
Conventional alkali leach	2,000,000 tpa	1,100,000 tpa
<b>U-pgrade™</b> Process	2,000,000 tpa	60,000 tpa**

\*\* If the U-pgrade™ process performs in line with the testwork results achieved to date.

In addition, the size differential is not simply linear as the enhanced kinetics of the acid leach circuit offers additional benefits over the current conventional alkali leach approach.

A concentrate produced by an **U-pgrade™** process provides additional optionality in that it will not only be suitable for processing using conventional acid leaching and refining technology to produce yellowcake; alternatively the concentrate produced may be safely and cost-effectively transported to an established third party for refining to produce yellowcake which would reduce capital costs and accelerate the project's development schedule.



Strategically, over the last four years the Company has consistently sought opportunities to become a producer by pursuing various fast track, relatively low capex development projects.

As a result of the successful completion of the initial Tumas metallurgical testwork program the Company is in a stronger position to deliver on its strategy.

### Tumas Deposit Resource Work

A new resource model over Tumas Zones 1 and 2 (Figure 2) has been built and a resource update will be completed within the next quarter. Information generated from the infill drill and bulk sample excavation area has been incorporated and whilst there is an expectation of only a minor resource increase a significant enhancement in confidence levels is expected.

The area along strike and to the east of Zone 1 described in the previous quarterly ("Zone 0"), which contains holes previously drilled but not included in the current JORC resource, was modelled but has not yet been incorporated in the updated resource. The area (highlighted in red in Figure 2) is some three kilometres in extent and grades seem comparable to those in the existing Tumas Zones 1 and 2 (approximately 350ppm  $U_3O_8$ ).

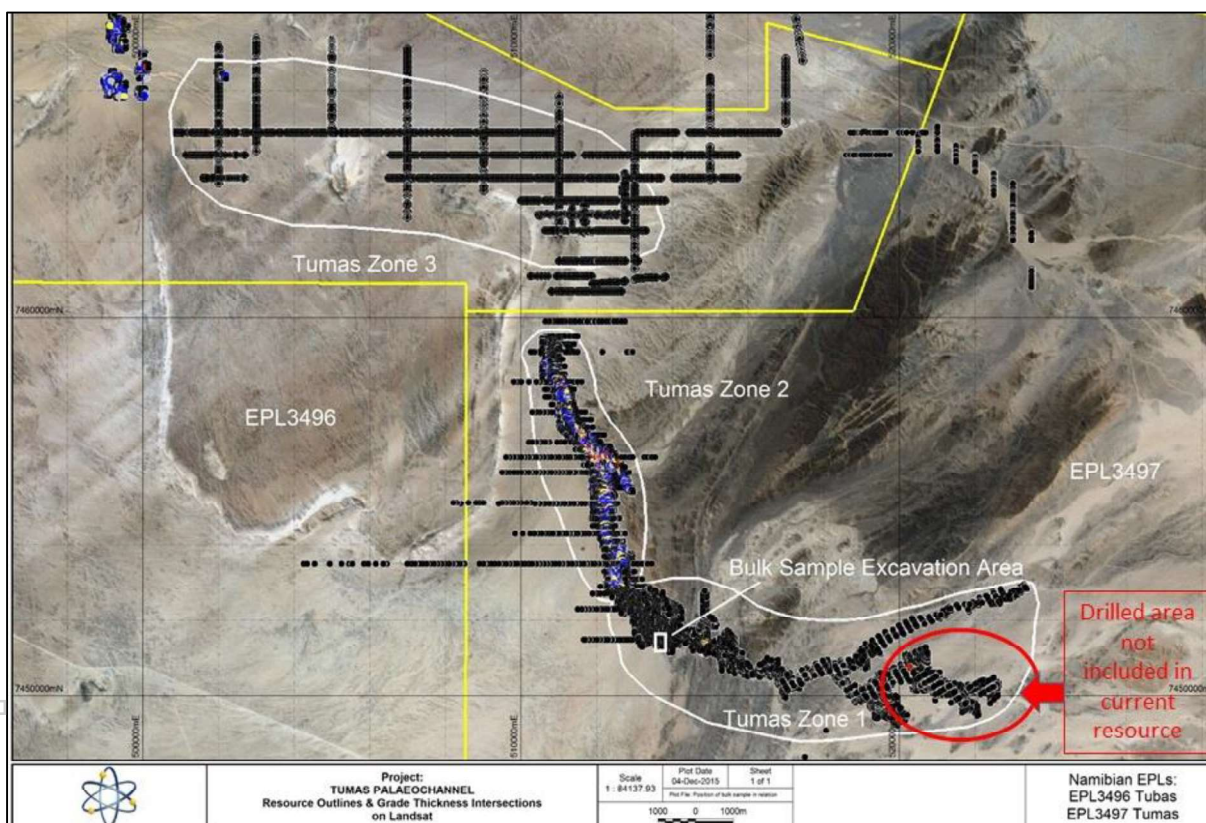


Figure 2: Map showing location Tumas "Zone 0" to the east the current Tumas JORC Resource.

At the appropriate time the Company will look to conduct field work on the area further east along strike beyond Tumas "Zone 0" which may be prospective for further resource extension. This area, together with Zone 0 and Zone 3 have the potential to increase the Project's resource base.





## NAMIBIAN LICENCE APPLICATIONS

### *Exclusive Prospecting Licences Renewed*

The Company previously advised that its wholly owned Namibian operating subsidiary, Reptile Uranium Namibia (Pty) Ltd (RUN), had received renewal confirmation for Exclusive Prospecting Licences (EPLs) 3496 and 3497 (see Figure 1). This is the fourth renewal for these two EPLs and allows DYL to continue to progress the Tumas/ and the Omahola Projects.

### *Mining Licence Applications Declined*

The Namibian Ministry of Mines and Energy notified the Company that the Minister had declined the Mining Licence Applications lodged in 2011 for the so-called INCA Project and the Tubas Red Sands Project. The Minister's decision, on economic grounds, was strictly in accordance with Namibia's Minerals (Prospecting and Mining) Act, No 33 of 1992. Realistically, he had no other option as Section 92 (2) (c) of the Act specifically stipulates that the Minister must be satisfied on reasonable grounds that the envisaged mining operation can be conducted on a profitable basis.

This decision has no meaningful impact on DYL or its future:

- The INCA Mining Licence Application, as conceived at the time, was not well defined and was soon after superseded by the much larger Omahola Uranium Heap Leach Project. The application was based on a small indicated and inferred resource of 16.4Mlbs  $U_3O_8$ , envisaged trucking an iron rich uranium ore for processing at Rössing and was supported by only conceptual level technical studies.
- Similarly, the Tubas Sand Mining Licence Application was premature with a measured, indicated and inferred resource of only 4.9Mlbs  $U_3O_8$  at the time and was reliant on final processing at a future INCA processing plant. Once again only conceptual level technical studies had been conducted. Subsequently, additional testwork and detailed studies by independent mining and engineering consultants were conducted and while results were considerably more encouraging, it was acknowledged by DYL in 2014 that the project required higher uranium prices. Therefore the Company took the decision to place the Tubas Sand Project on hold for economic reasons.

The two blocks that made up the Mining Licence Applications have now reverted back to being a part of the Company's EPL3496 and can form a component part of any future mining licence application whilst the Environmental Clearances for the two areas, issued around that time, remain valid.

## CORPORATE

DYL is pleased to report a balance of \$1.6 million of cash and liquid assets as at 30 June 2016, which excludes the funds raised in a Share Purchase Plan (SPP) that closed on 1 July 2016. The SPP raised a total of \$752,600 and resulted in the issue of 188,150,000 new shares to existing shareholders.

It is envisaged that the funds raised in the SPP will allow the Company to continue to progress its promising Tumas Project in Namibia which is now well positioned as a result of the recent successful completion of the first phase of **U-pgrade™** metallurgical testwork.

During the quarter 16,441,876 shares were issued in relation to shareholder approved payments in lieu of salaries and director fees and 400,000 performance share rights were cancelled in accordance with their terms.



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

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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 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, an extensive surficial calcrete deposit amenable to the application of an effective beneficiation process. Various test have been successfully conducted over the last four years in pursuit of this strategy.

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

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**Competent Person's 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.

## Annexure 1

### Schedule of Mineral Tenure – June 2016

#### NAMIBIA

Number	Name	Interest	Expiry Date	JV Parties	Approx. Area (km <sup>2</sup> )
EPL 3496	Tubas	100%	05.06.2017	-	709
EPL 3497	Tumas	100%	05.06.2017	-	422
EPL 3498	Aussinanis	85%	07.05.2016 <sup>#1</sup>	5% Epangelo <sup>#3</sup> 10% Oponona <sup>#4</sup>	253
EPL 3669	Tumas North	65%	20.11.2015 <sup>#1</sup>	} 25% Nova (Africa) <sup>#5</sup> 10% Sixzone <sup>#6</sup> 5% Oponona <sup>#4</sup>	163
EPL 3670	Chungochoab	65%	20.11.2015 <sup>#1</sup>		640
ML 176 <sup>#2</sup>	Shiyela	95%	05.12.2027		54
<sup>#1</sup> Renewal documentation has been submitted and the Company awaits the administrative process to be finalised					
<sup>#2</sup> Located entirely within EPL3496					
<sup>#3</sup> Epangelo Mining (Pty) Ltd					
<sup>#4</sup> Oponona Investments (Pty) Ltd					
<sup>#5</sup> Nova (Africa) (Pty) Ltd					
<sup>#6</sup> Sixzone Investments (Pty) Ltd					
			Sub-Total	2,241	

#### NORTHERN TERRITORY

Number.	Name	Interest	Expiry Date	JV Parties	Approx. Area (km <sup>2</sup> )
EL 24246	Napperby	100%	10.10.16	-	234
<b>Sub-Total</b>					<b>234</b>
<b>DYL Total</b>					<b>2,475</b>

#### AGREEMENTS

	Approx. Area (km <sup>2</sup> )
ABM Resources NL - Northern Territory (100% uranium rights stay with DYL)	5,775
<b>Sub-Total</b>	<b>5,775</b>
<b>Total Area</b>	<b>8,250</b>

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