



## Quarterly Activities Report

For the Period Ended 30 June 2013

### HIGHLIGHTS

- Marenica continue to have success in development of the **U-pgrade** process.
- Bench scale tests in sea water produce similar results to tap water, indicating that **U-pgrade** will work in any quality water.
- The replacement of desalination water with sea water significantly reduces the estimated process OPEX in relation to the Marenica deposit.
- Initial testing of high sulphate calcrete ore indicates that **U-pgrade** is likely to reject both sulphate and calcite.
- Marenica reached agreement with Areva (Trekopje) and Deep Yellow to test **U-pgrade** on ore samples.

## Marenica Uranium Project – 75% owned

The main activity in this quarter continued to be detailed metallurgical testwork on bulk samples, to upgrade the carnotite ahead of leaching, from the Company's 75% owned **Marenica Uranium ("Project")**, located in Namibia, Southern Africa.

The testwork programme included developmental and flowsheet optimisation work on bulk samples of Marenica ore. Previous results have been confirmed and improved during the quarter.

**U-pgrade** has produced the following results to date

- Mass rejection of 99%
- Leach feed of 1% of mined ore
- Upgrade ratio of >60 times the head grade
- Leach feed grade of >5,500ppm  $U_3O_8$  from a mined grade of 94ppm  $U_3O_8$ .

Due to the high cost of desalination water in Namibia emphasis during the quarter was placed on exploring alternate lower cost water sources such as sea water. It was confirmed during the quarter that **U-pgrade** results in sea water were very similar to desalination water (represented by Perth tap water). The result of this is a significant reduction in estimated process OPEX (operating cost) in relation to the Marenica deposit.

The **U-pgrade** results achieved to date have been on low sulphate ore, which represents the majority of the Marenica resource. Initial tests on the high sulphate ore have produced very encouraging results and it is apparent that **U-pgrade** is likely to reject both the sulphate and calcite minerals.

This is significant because until now high sulphate bearing calcrete hosted uranium ores have not been able to be processed due to:

- The sulphate in an alkali leach (adopted for calcrete ores) consuming large quantities of alkali reagent, resulting in very high operating costs.
- The calcite in the calcrete ore consumes large quantities of acid in an acid leach, resulting in very high operating costs.

The rejection of both sulphate and calcite from high sulphur Marenica ore produces a feed suitable for either acid or alkali leaching with reasonable reagent consumption. More detailed testwork is in progress on this ore type.

The Marenica Project along with many other surficial uranium deposits in Africa as well as Australia contains a high distribution of sulphate minerals nearest the surface. For some resources such as Marenica this high sulphate component represent a low distribution of the ore resource (10%) but for other resources the distribution of high sulphate ore can be as high as 100%.

This is seen as a further commercial opportunity for **U-pgrade**.

To enable the **U-pgrade** technology to be tested on uranium ore sources other than the Marenica Project, the Company has reached agreement with Areva Mines to supply ore samples from the Trekkopje deposit for proof of concept testwork. The Trekkopje project is in the adjacent mining lease to Marenica with a similar resource to Marenica but with a marginally higher grade. The Trekkopje project is a large scale heap leach operation which is currently under care and

maintenance due to the current low uranium price and high operating costs. Successful application of the **U-pgrade** technology to the Trekkopje ore will provide a basis for discussion with Areva Mines on application of **U-pgrade** to Trekkopje.

Marenica have also reached agreement with Deep Yellow Limited to supply ore samples from Deep Yellow's surficial deposits in Australia and Namibia. Deep Yellow's surficial deposits are significantly higher grade than Marenica (at least 3 times on average) and successful application of **U-pgrade** has the potential to result in very low operating costs, well below the current spot  $U_3O_8$  price. Successful application of the **U-pgrade** technology to either the Australian or Namibian ore samples will provide a basis for discussion with Deep Yellow on application of **U-pgrade** to their projects.

The Company continues to work on optimising the concentrate upgrade ratio and on maximising the uranium recovery.

In the next six months work on optimising the process flowsheet and testwork on other ore sources (Trekkopje and Deep Yellow) is planned to be completed.

Successful completion of this work will lead into design and costing of a transportable Pilot Plant that can be used at various locations around the world.

## CORPORATE

On 24 June 2013 Marenica announced a Capital Raising through an Entitlement Issue to raise up to approximately \$2,000,000. The Entitlement Issue closed on 29 July 2013 and the total raised will be advised on 1 August 2013. The directors have three months to place the shortfall from the Entitlement Issue. Funds from this capital raising will be used to fund **U-pgrade** flowsheet optimisation and testwork on other ore sources as well as debt reduction and working capital.

During the quarter the company received \$268,000 from the 2011/12 Research and Development Tax Incentive Claim. The company

is currently preparing the 2012/13 Research and Development Tax Incentive Claim and expects to receive a refund in excess of \$500,000 and expects to receive the proceeds in the September quarter.

## ENDS

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