



30 April 2018

About Marenica Energy

- Marenica Energy Limited (ASX: MEY) is a minerals exploration company holding a portfolio of mineral tenements in Namibia and Australia.
- Marenica is actively looking to increase these tenement holdings.
- Marenica has developed its proprietary uranium **U-pgrade™** process and has been granted Patents to protect the process.

U-pgrade™ is a beneficiation process for upgrading secondary uranium deposits. It has the potential to transform the economics of uranium production.

- Marenica's principal project is the 75% owned Marenica Uranium Project in Namibia.

Investment Summary

- 100% interest in Uranium **U-pgrade™** Process.
- 75% interest in the Marenica Uranium Project in Namibia.

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Quarterly Activity Report for the period ending 31 March 2018

Highlights

Uranium **U-pgrade™** Process

- **U-pgrade™** amenability testwork program on Langer Heinrich ore samples was successful.
- Discussions continue on the potential application of **U-pgrade™** to Langer Heinrich.
- The Company continues to engage with other resource owners with the aim of applying **U-pgrade™** to their projects.
- The Company is completing due diligence on a number of projects for acquisition or application of **U-pgrade™**, or both

Corporate

- The Company appointed Mr Andrew Bantock as Chairman of the board.
- The Company announced a placement to raise \$1,062,000.

Uranium *U-pgrade™* Process

Marenica developed the *U-pgrade™* uranium process to provide a viable pathway for development its namesake Marenica Uranium Project in Namibia. Marenica has since demonstrated *U-pgrade™* to be effective on other surficial style uranium ores around the world. This disruptive process technology potentially reduces the capital and operating costs by about 50% over standard process routes, with a consequent significant improvement on project economics.

Marenica has completed testwork on ore samples from a number of Namibian calcrete hosted uranium sources, concluding that the mineralogy is similar for all deposits, and the Company's proprietary *U-pgrade™* process is expected to have a materially positive impact on the cost of U₃O₈ production from these styles of deposit.

The Company reported in the December 2017 quarter that it had completed an *U-pgrade™* amenability testwork program on ore samples from Paladin Energy Limited's ("Paladin", ASX "PDN") 75%-owned Langer Heinrich Uranium Mine ("LHM") in Namibia. The testwork was successful, confirming the expected substantial benefits of Marenica's proprietary *U-pgrade™* process to LHM.

Paladin confirmed in its presentation titled "BMO Conference Presentation" released to ASX on 26 February 2018, that it is evaluating the potential of Marenica's *U-pgrade™* process on beneficiating low-grade ore at Langer Heinrich. This work is being undertaken in conjunction with Marenica.

The presentation discloses that initial studies indicate that Marenica's *U-pgrade™* process could add 1.5 to 1.8 million pounds per annum of production to Langer Heinrich (an approximate 40% increase) and reduce overall site average unit costs of production.

On 8 February 2018, Marenica announced the results of testwork on Langer Heinrich ore. The results were very positive and indicated that the Langer Heinrich ore outperformed all other ores previously tested using *U-pgrade™*.

The testwork results indicated that the *U-pgrade™* process plant recovery is expected to exceed 85%, producing a concentrate for leaching of less than 2.5% of the mined mass. This means that for every one tonne of ore mined, only 25 kilograms of *U-pgrade™* processed ore would be sent to the leach plant. By comparison, currently 600 kilograms of ore is presented to the Langer Heinrich leach plant for every tonne mined.

The focus of the testwork, referred to above, was on detailed mineralogical ore characterisation and laboratory scale testing of critical unit operations in the *U-pgrade™* flowsheet. Marenica has tested a variety of ores through this same procedure and has a thorough understanding of the critical characteristics to determine the expected performance of this particular ore through the *U-pgrade™* process. The testwork on Langer Heinrich ore was completed on a single composite prepared from four individual samples taken from the Langer Heinrich low grade stockpiles.

Marenica is in various stages of discussions with a number of resource owners to enable Marenica to demonstrate the benefits of **U-pgrade™** on their projects. Marenica is in the process of completing due diligence on a number of projects either for acquisition or application of **U-pgrade™**.

Corporate

Appointment of new Chairman

During the quarter the Company appointed Mr Andrew Bantock as Chairman of the Board, following the impending retirement from the Board of Mr Doug Buerger. Mr Buerger will remain as a non-executive director for a suitable transition period.

Mr Bantock is a Senior Managing Director of leading international corporate advisory firm FTI Consulting, where he co-leads the Australian Mining and Mining Services Practice.

Mr Bantock has operated as CFO, Chairman, CEO and Director of international, ASX listed, government sector and private corporations. Previous roles include: CFO of Glencore Xstrata Plc's Australian nickel business; Director of the Water Corporation, Western Australia's water utility where he also chaired the audit committee; Chairman, CEO and Corporate Director of an ASX listed multi-commodity minerals exploration group; and Finance Director of ASX/NZSE listed GRD Ltd, owner of New Zealand's largest gold miner and GRD Minproc (now part of AMEC Foster Wheeler), a world class mining construction and development engineer.

Capital Raising

During the quarter the Company announced that it had raised a total of \$1,062,000, before costs.

The placement of 10,620,000 fully paid ordinary shares ("Shares") at an issue price of 10 cents per Share plus 5,310,000 attaching Options, which will be granted on the basis of one Option for every two Shares subscribed, will raise a total of \$1,062,000, before costs. The unlisted options will have an exercise price of \$0.17 per share, exercisable within two years of grant ("Option"). The placement will be undertaken in two tranches. The first tranche placed 7,016,674 Shares on 23 March 2018 to raise \$701,667.40 under the Company's ASX Listing Rule 7.1 placement capacity. Subject to shareholder approval, the second tranche of the placement will place 3,603,326 Shares to raise an additional \$360,332.60 and grant the total of 5,310,000 Options. A general meeting of shareholders will be held on 9 May 2018.

Tenement Schedule

The Group holds the following mineral tenements at the end of the quarter. There were no changes to tenement holdings during the quarter.

Namibia – Marenica Minerals (Pty) Ltd (Marenica 75%)

➤ MDRL3287

Australia – Marenica Energy Ltd

➤ Vic Loc 118; Vic Loc 119 and Vic Loc 833

Expenditure

The Group incurred exploration expenditure of \$32,091 during the quarter.

Project Location



What is U-pgrade™?

Marenica has developed ***U-pgrade™*** as a potential industry leading and economically transformational beneficiation process for upgrading surficial uranium ores.

Marenica developed this potentially disruptive process on ore samples from its namesake Marenica Project in Namibia and since then testwork been undertaken on ore samples from a number of other sources.

The Company has demonstrated in bench scale testwork that it can concentrate the uranium from its calcrete hosted uranium project in Namibia (Marenica). In summary, ***U-pgrade™*** has demonstrated that it;

- Concentrates the uranium by a factor of 50
- Rejects ~98% of the mass prior to leaching
- Produces a high grade concentrate in a low mass of ~2% (leach feed)
- Rejects acid consumers
- Reduces operating costs by ~50% and capital costs by ~50% compared to conventional processing