

## ASX RELEASE

14 August 2023

# Pilot Plant Design Commissioned - Wiluna Uranium Project

### HIGHLIGHTS

- Toro has commissioned a pilot plant design for the Company's Wiluna Uranium Project that now includes the processing of vanadium as a valuable by-product.
- Pilot plant will be designed to test the newly developed processing flow sheet for Lake Maitland at closer to 'operational' scale.
- Design to include both a hydrometallurgical pilot plant design and a beneficiation pilot plant design.
- Design will incorporate all aspects of both uranium & vanadium production.
- The new flowsheet results from many years of research and development to optimise feasibility and the very strong outcomes of the recently completed Lake Maitland Scoping Study. These include:

#### Excellent financial outcomes

- NPV pre-tax **A\$610M** at a discount rate of 8%
- Payback period of **2.5 years** and IRR of 41%
- Total undiscounted cash flow of A\$1,076.5M pre-tax
- Average A\$98M pa EBITDA (Total EBITDA \$1,768.6M)
- Total undiscounted cash flow of A\$1,423M pre-tax
- Excellent C1 (US\$15.84) and AISC (US\$20.32) in first 7 years

#### Modest CAPEX

- **US\$189M** (or A\$270M) capital cost estimate including 20% contingency and 15% EPCM
- Includes all processing and non processing infrastructure for the proposed stand-alone Lake Maitland operation, including entire processing facility with **beneficiation plant** and ability to produce both uranium & vanadium

#### Low operating cost estimates

- C1\* Cash operating cost of US\$15.84/lb U<sub>3</sub>O<sub>8</sub> over the first 7 years
- C1\* Cash operating cost of **US\$23.10/lb** U<sub>3</sub>O<sub>8</sub> over Life of Mine
- All In Sustaining Cost (AISC)\* of US\$20.32/lb U<sub>3</sub>O<sub>8</sub> over the first 7 years
- All In Sustaining Cost (AISC)\* of **US\$28.02/lb** U<sub>3</sub>O<sub>8</sub> over Life of Mine
- Very low C1 (**US\$15.84**) and AISC (**US\$20.32**) per lb U<sub>3</sub>O<sub>8</sub> in first 7 years provide very strong margins

#### Mining & Production

- 17.5 year mine life (2.5 year payback period)
- Low average strip ratio of 1.17
- Process approximately 1.94Mt of ore per annum (front of beneficiation plant)
- **Annual average production** approximately **1.3Mlbs U<sub>3</sub>O<sub>8</sub>** (100% Indicated Resource) and **0.7Mlbs V<sub>2</sub>O<sub>5</sub>** (100% Inferred Resource) (refer to the Company's release of 24 October 2022 for further details)
- **Total production** approximately **22.8Mlbs of U<sub>3</sub>O<sub>8</sub>** and **11.9Mlbs of V<sub>2</sub>O<sub>5</sub>** (refer to resource table for the Wiluna Uranium Project contained in **Annexure A** of the Company's release of 24 October 2022 for further information as well as discussion on production schedule)

#### ASX Listing Rule 5.19.2

The Company confirms that all material assumptions underpinning the production target and the derived forecast financial information disclosed in the Lake Maitland Scoping Study announced by the Company on 24 October 2022 continue to apply and have not materially changed.

**Commenting on capitalising on the outcomes of the Lake Maitland Scoping Study Toro's Executive Chairman, Richard Homsany, said**

*"The Board is pleased to commission the pilot plant design following on from the outstanding Scoping Study results for the Lake Maitland uranium deposit, which illustrate the quality and global significance of Toro's uranium assets. The modest capital and operating costs result from many years of extensive research and development by Toro to optimise the processing flowsheet.*

*Lake Maitland represents a significant proportion of the Wiluna Uranium Project's resources and highlight the transformational effect of the stand-alone Lake Maitland operation on the potential economics of the entire Wiluna Uranium Project.*

*Against a backdrop of a strengthening global uranium market, Toro is pleased to continue to advance Lake Maitland which is on track to be very competitive globally with a:*

- **17.5 year mine life producing a total 22.8Mlbs U<sub>3</sub>O<sub>8</sub> and 11.9 Mlbs V<sub>2</sub>O<sub>5</sub>**
- **short payback period of 2.5 years**
- **low C1 operating cost of US\$15.84/lb U<sub>3</sub>O<sub>8</sub> in years 1 to 7 when high grade uranium resource is being processed**
- **strong life of mine C1 operating cost of only US\$23.10/lb U<sub>3</sub>O<sub>8</sub>**
- **low AISC cost of US\$20.32/lb U<sub>3</sub>O<sub>8</sub> in years 1 to 7 when high grade uranium resource is being processed**
- **strong life of mine AISC cost of only US\$28.02/lb U<sub>3</sub>O<sub>8</sub>**
- **modest total CAPEX of US\$140M plus 20% for contingency and 15% for EPCM**
- **total EBITDA of \$1,768.6M**
- **total undiscounted cash flow of A\$1,423M pre-tax**

*Toro remains very enthusiastic that we are on the precipice of a significant strengthening in uranium price and which can provide potential significantly higher returns than the financial returns published in the Lake Maitland Scoping Study, which assumed a US\$70/lb U<sub>3</sub>O<sub>8</sub> price, US\$5.67/lb V<sub>2</sub>O<sub>5</sub> price and a US\$:A\$0.70 exchange rate.*

*Toro is also confident it can further optimise these Scoping Study outcomes due to Lake Maitland's close proximity to Toro's 100% owned Centipede-Millipede and Lake Way uranium deposits within the Wiluna Uranium Project.*

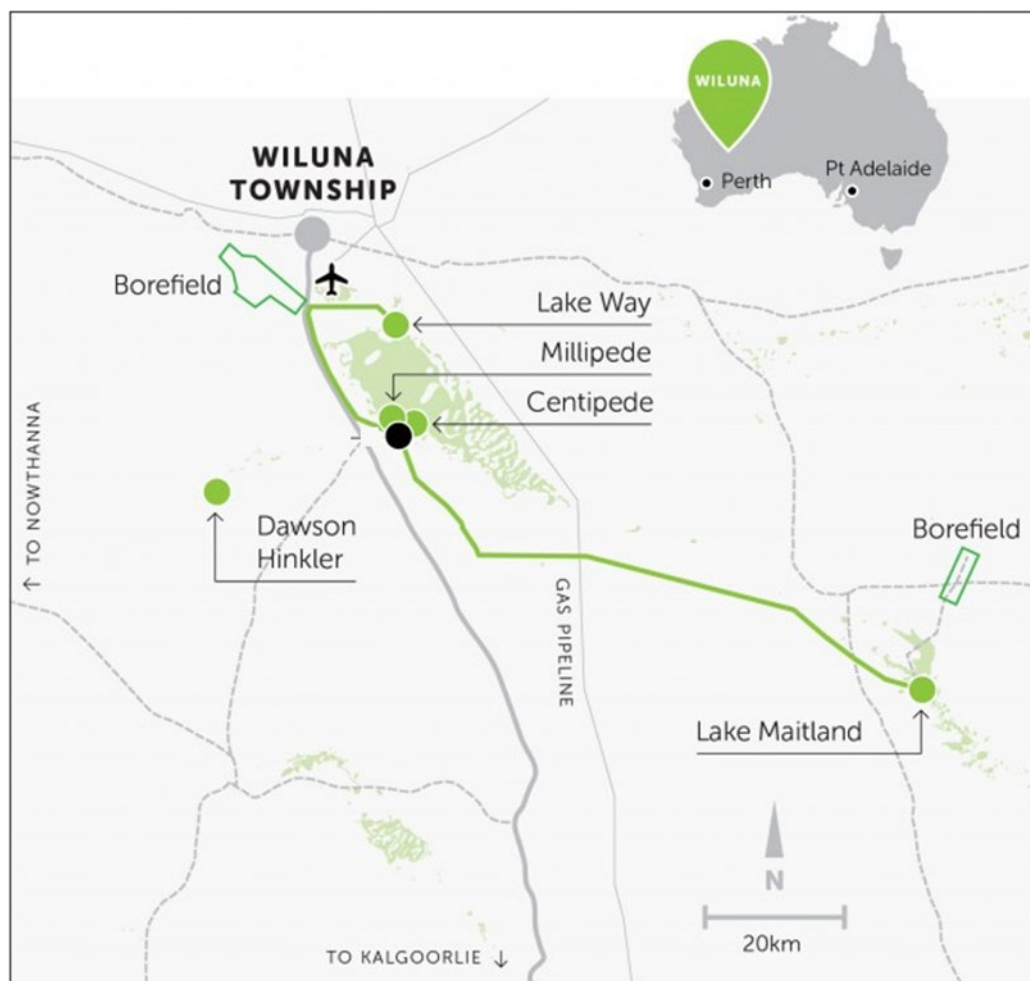
*We are also buoyed by the clear opportunity that the potential integration of additional resources from these deposits affords Toro to significantly increase production at a Lake Maitland processing operation and, in particular, extend the processing of high-grade uranium resource well beyond the seventh year of production."*

Toro Energy Limited (**ASX: TOE**) ('the **Company**' or '**Toro**') is pleased to announce that the metallurgical consulting group, Strategic Metallurgy, has been commissioned by Toro to undertake a detailed design of a pilot plant to further assess the new processing flowsheet for its 100% owned Wiluna Uranium Project. The Wiluna Uranium Project is located near Wiluna on the Goldfields Highway, some 750km NE of Perth in Western Australia (see **Figure 1**).

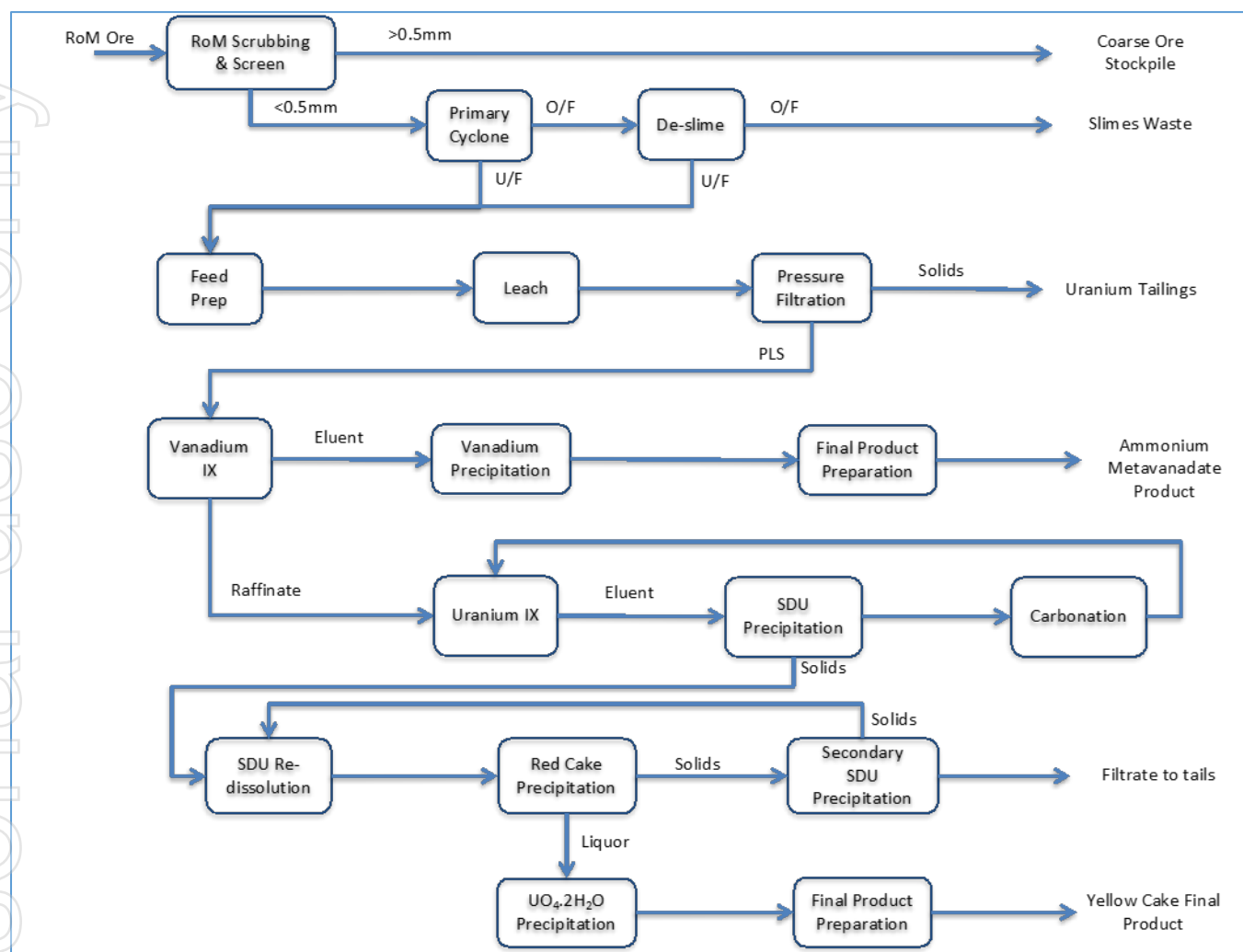
Strategic Metallurgy has been intricately involved in every step of the way through the years of research and development of Toro's new processing flow sheet (**Figure 2**), from the very initial laboratory testing through to the design of the new flowsheet that now includes beneficiation, filtration and ion exchange to produce both uranium and vanadium products (**Figure 2**). It is for this reason that Toro is highly confident that Strategic Metallurgy is best placed to assist Toro progress through the next phase of its research and development on the Wiluna Uranium Project, designing a pilot plant to test the proposed new flowsheet at a more 'operational' scale.

As already stated the design of the pilot plant will include the design of the two distinct operating stages, being the beneficiation pilot plant and the hydrometallurgical pilot plant. The design will include preparation of process design criteria and will result in a detailed mechanical equipment list and a series of process and instrumentation diagrams as well as the plant layout and detailed construction drawings.

It is more than likely that any pilot plant to be commissioned by Toro would be constructed and operated in Perth and so Strategic Metallurgy will also provide a detailed capital cost to construct the pilot plant in Perth.



**Figure 1: Wiluna Uranium Project**



**Figure 2: Block flowsheet of the scoping study process**

This announcement was authorised for issue by the board of Toro Energy Limited.

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**FURTHER INFORMATION:**

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*Toro's flagship asset is the 100% owned Wiluna Uranium Project, located 30 kilometres southwest of Wiluna in Central Western Australia. The Wiluna Uranium Project has received environmental approval from the state and federal governments providing the Project with the opportunity to become Western Australia's first uranium mine. Toro will maximise shareholder returns through responsible mine development and asset growth including evaluating the prospectivity of its asset portfolio for minerals other than uranium and increasing their value.*

[www.toroenergy.com.au](http://www.toroenergy.com.au)