

**ASX RELEASE**

10 October 2019

**Work Programs Commence at Wiluna Uranium Project to Unlock Shareholder Value****HIGHLIGHTS**

- **Maiden JORC 2012 Vanadium Mineral Resource estimation underway**
- **Flowsheet optimisation program to extract valuable vanadium by-product commences**
- **Metallurgical test work programme targeting increased uranium recoveries underway**
- **Fully Underwritten \$3.5M Share Purchase Plan open to eligible shareholders**

Toro Energy Limited (**ASX: TOE**) ("the **Company**" or "**Toro**") is pleased to advise of its upcoming plans to carry out two separate work programmes on its Wiluna Uranium Project ("the **Project**") with the assistance of metallurgical consultants Strategic Metallurgy Pty Ltd ("**Strategic**") which are aimed at unlocking greater value from the Project.

**MAIDEN JORC 2012 VANADIUM MINERAL RESOURCE ESTIMATION UNDERWAY**

Estimation of a Maiden JORC 2012 Vanadium Mineral Resource is underway at the Wiluna Uranium Project. Once established, this will assist evaluation of the viability of vanadium as a by-product and potentially increase the value of the Project.

**EXTRACTION OF VALUABLE VANADIUM BY-PRODUCT**

A flowsheet optimisation programme has commenced to assess the production of a vanadium by-product from the Lake Maitland ore body. Early stage test work has shown promise in the ability to recover vanadium into a by-product stream through a relatively minor change to the existing processing flowsheet. The results have built on earlier development work that proved the use of ion exchange as a viable process in the Project.

The production rates and associated costs of a vanadium product from the Wiluna Uranium Project is not something that has been assessed to date. As such, the impact of recent test work development will be assessed in a detailed metallurgical simulation of the process flowsheet. The outputs of this simulation will be used to determine the potential production rates of vanadium product as well as provide indications of the additional operating costs incurred with the change. This will provide valuable data in order to assess the benefit to Project economics with the inclusion of a vanadium by-product in the Project flowsheet and highlight areas for future refinement of the process.

Ultimately, it is expected that the inclusion of vanadium into the product suite for the Project will likely result in increased revenue for a relatively minor increase in capital and operating costs.

Toro has been conducting research and test-work on leach optimisation and ion exchange for the clean

separation and recovery of both uranium and vanadium. The successful leaching and ion exchange processes developed by Toro should allow for the recovery of vanadium into a vanadium pentoxide ( $V_2O_5$ ) product for sale without any significant loss to the recovery of uranium.

### **POTENTIAL TO INCREASE URANIUM RECOVERIES**

Metallurgical test work to assess novel processes for the recovery of additional uranium from the Project resource has commenced. In particular, the testing will focus on a portion of the resource that has currently not been included in the evaluations for the Company's 2016 scoping study for the Project or in the 2019 updated scoping study for the Project.

A review of the work done on the Project and other comparable ore bodies has brought to light new and, as yet untested, processes that are potentially viable.

If proven successful, these processes may allow for a step change improvement in the Project economics by unlocking value from previously uneconomic areas of the resource.

It is important also to highlight that not only does the utilisation of ion exchange allow for the potential economic recovery of vanadium (whereas the previously proposed SDU precipitation process did not) but it also reduces complexity in the processing circuit via negating the complex refining process required after SDU precipitation.

The sodium hydroxide (caustic soda) used in the SDU precipitation process represents the most significant reagent cost in the previously proposed processing circuit as a whole.

It therefore also potentially allows for significant reductions in reagent costs for the Project.

### **SHARE PURCHASE PLAN UPDATE**

The Company wishes to remind eligible shareholders that the Company's Share Purchase Plan (**SPP**), as announced on 26 September 2019, will close at 5pm (WST) Friday 18 October 2019. Your financial institution will have earlier cut off times for BPAY payments, so please ensure your payment is processed in time. The Offer under the SPP is intended to raise at least \$3.5 million (before costs) on the terms and conditions as set out in the SPP offer document lodged with ASX on 26 September 2019 and sent to eligible shareholders on 27 September 2019. The SPP is fully underwritten by Patersons Securities Limited.

Eligible shareholders have the opportunity to purchase up to \$30,000 worth of fully paid ordinary shares in the Company with no associated brokerage. The shares will be issued at a price that is a 20% discount to the 5 day volume weighted average price of shares trading on ASX over the last 5 trading days on which shares were traded immediately before the allotment date in accordance with ASX Listing Rules. If you would like to receive an electronic copy of your personalised application form, this can be requested through the Company's share registry, **Advanced Share Registry, whose contact details are below.**

**FURTHER INFORMATION:**

|                 |             |              |
|-----------------|-------------|--------------|
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The information in this document that relates to geology and exploration was authorised by Dr Greg Shirtliff, who is a full time employee of Toro Energy Limited. Dr Shirtliff is a Member of the Australian Institute of Mining and Metallurgy and has sufficient experience of relevance to the tasks with which they were employed to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Shirtliff consents to the inclusion in the report of matters based on information in the form and context in which it appears.

*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)