

ASX RELEASE

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Toro Advances Next Stage of Beneficiation and Process Design Studies for the Wiluna Uranium Project

Highlights

- Flow sheet re-design may reduce capital cost of hydrometallurgy plant by more than 40%.
- Toro evaluating the underexplored gold prospectivity at Lake Maitland deposit.
- The Company encourages all investors to update their contact details to stay informed on Company news here: <http://www.ozfinancial.com.au/LP/ToroEnergy-Details.aspx>

Toro Energy Limited (ASX:TOE) ('the Company' or 'Toro') is pleased to announce it will advance to the next stage of the **Beneficiation and Process Design** studies ('**BPD Studies**') for the Company's 100% owned Wiluna Uranium Project in Western Australia (refer to **Figure 1**) following the success of the testing so far in confirming opportunities to substantially reduce the capital and operating costs of the processing facility.

The key outcome of the BPD Studies to date has been a re-design of the process flow sheet that has the potential to reduce the capital cost of the proposed hydrometallurgical plant by more than 40% to approximately **\$78M** and to reduce the processing operating cost to approximately **\$16/t** run-of-mine ('**RoM**') feed (as shown by the study presented in Toro's ASX announcement of 5 December 2016). The success of the BPD Studies to date is based on the improved understanding of the different lithologies and uranium associations of the Wiluna deposits, and the novel application of conventional technologies to the processing flow sheet. Beneficiation not only delivered an upgraded uranium concentrate to the leach circuit but also provided the opportunity to investigate filtration and wash cycles prior to the leaching stage. The result is a more efficient hydrometallurgical circuit with potentially significant improvements to capital and operating costs. Please refer also to the Company's ASX announcements of 5 December 2016 and 30 January 2018.

Major advances to processing design to date include:

- a beneficiation circuit which has the potential to deliver up to 75% mass reduction whilst maintaining a uranium recovery of as high as 84%;
- a filtration and washing step which removes saline water and produces a drier leach feed thereby reducing reagent consumption;
- unique wash water recirculation to increase reagent utilisation and reduce reagent losses;
- the introduction of ion exchange which removes the need for evaporation ponds; and
- the potential for a gravity separation step to be introduced to further beneficiate ore as well as effectively reject two major reagent consuming gangue minerals.

Cautionary Statement

The Studies are based on lower-level technical and economic assessments and are insufficient to provide certainty that the conclusions of the Studies will be realised. Further, the Company cautions that there is no certainty that the forecast financial information contained in the Studies will be realised. All material assumptions underpinning the forecast financial information are set out in this announcement. This forecasted financial information is deduced from an underlying mining production rate deemed possible due to the size of the Mineral Resources at Lake Maitland. Refer ASX announcement dated 1 February 2015 that shows Lake Maitland deposit has sufficient Mineral Resources to support a 2Mt/a mining operation.

In consultation with the Company, Strategic Metallurgy Pty Ltd (**'Strategic Metallurgy'**) which has been engaged for the BPD Studies, has identified four main phases of work required to advance and complete the next stage, focusing on treating Lake Maitland Clay80 ore. These include:

- Phase 1: Leaching and Ion Exchange Test work
- Phase 2: Metsim® Modeling
- Phase 3: Process Package Development
- Phase 4: Estimation of the Capital and Operating Costs

The aim of Phase 1 will be to further evaluate and optimise conditions in the leach and ion exchange process operations, part of the hydrometallurgical plant developed in the studies to date. This will entail confirmation of the leaching characteristics and ion exchange efficiency on leach liquors. This may allow for the Sodium Diurate (**'SDU'**) precipitation circuit to be greatly reduced in size or potentially removed altogether. This would enable significant reductions in both capital and operating costs. Focus will also be given to the effect of high chloride levels on the efficiency of ion exchange.

Phase 2 will involve a review and update of the Metsim® model developed in the studies to date. In Phase 2, the model will be updated, where relevant, with data generated in Phase 1 to reflect any changes to the process flowsheet and leaching characteristics of the Lake Maitland Clay80 ore. The model is used to predict process outputs including, but not limited to, process water consumption, reagent consumptions and chloride build up. This provides critical data used to establish design criteria for an updated processing circuit design package for Phase 3.

Phase 3 will involve the development of an updated processing circuit design package based on outputs from the Metsim® model and will include equipment sizing and selection. Phase 3 specifically focuses on updates to process flow diagrams, process design criteria and the mechanical equipment list for the processing facility.

Phase 4 will involve revising the capital and operating costs based on the output from the processing circuit design package.

It is anticipated that work on Phase 1 of the BPD Studies will be completed during Q3 2018. Toro will determine whether to progress through the successive phases on a progressive basis which will include being influenced by the results from Phase 1.

Toro has engaged OzFinancial to assist with the Company's investor communications and encourages all Shareholders to update their contact details to stay informed on Company news here: <http://www.ozfinancial.com.au/LP/ToroEnergy-Details.aspx>

Figure 1: Wiluna Uranium Project - Location



The Company considers that the new processing circuit design and process flowsheet are critical parts of its strategy to better position the Wiluna Uranium Project in light of a lower forecast uranium price environment.

Other Minerals Prospectivity

Toro is also actively considering and evaluating other avenues to extract value from the Wiluna Uranium Project during this presently subdued uranium price market, including an assessment of the prospectivity for other metals, the most obvious being Yandal style gold (Jundee, Darlot and Bronzewing) on the tenements related to the Lake Maitland deposit.

The Yandal Greenstone Belt is a world class gold district having already produced over 14 Moz so far (Jundee, Darlot and Bronzewing gold mines). The late discovery of gold in the Yandal in the late 1980s has meant that the tenements related to Toro's Lake Maitland deposit, discovered in the early 1970s and held for uranium since, are underexplored for gold and all other metals.

Background

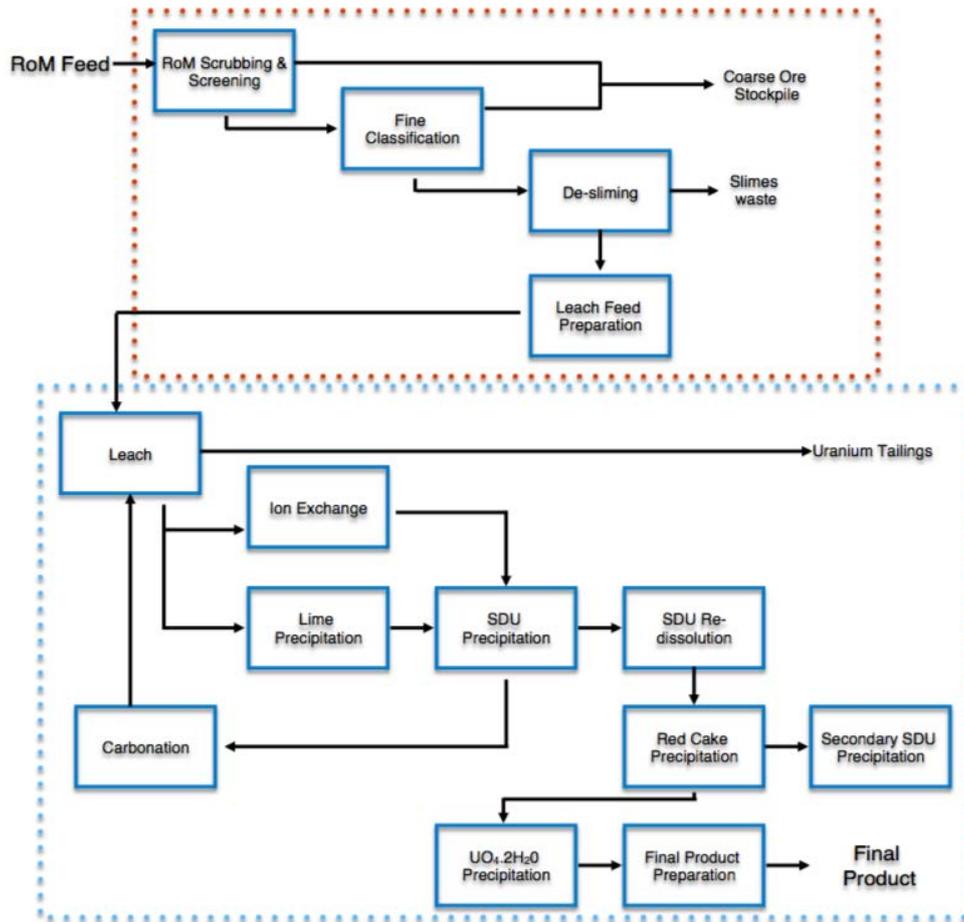
Strategic Metallurgy was engaged in 2017 to further develop the processing concepts that were successfully tested in the preliminary studies of 2016. The main focus of that work was to test for variability in the behaviour of each individual ore type identified in the earlier studies, to the proposed beneficiation and processing techniques, such as filtration. The outcome of the 2017 test work confirmed opportunities to substantially reduce the capital and operating costs of the proposed hydrometallurgical

plant for the Wiluna Uranium Project through a re-design of the plant and processing flowsheet (refer to **Figure 2**).

The key changes and potential economic improvements from the 2017 test work were:

- the introduction of a beneficiation circuit that used simple screening and de-sliming to concentrate uranium;
- a filtration and washing step which removes saline water and produces a drier leach feed thereby reducing reagent consumption; and
- a unique wash water recirculation to increase reagent utilisation and reduce reagent losses, and the introduction of ion exchange which removes the need for evaporation.

Figure 2: Potential revised Wiluna Uranium Project process flow sheet



Significant Potential Project Cost Savings

The improvements to the project flow sheet have directly impacted the capital and operating costs of the processing facility. The addition of a beneficiation circuit capable of receiving 2Mt/a of ore and a leach feed filtration step has the potential to bring the total capital cost of the beneficiation and hydrometallurgical facility down to approximately **\$78M**, from approximately **\$134M¹** (as shown by the study presented in Toro’s ASX announcement of 5 December 2016).

¹ Total process plant cost estimate of \$144.9M for a 1.3Mt/a throughput rate was published in the ASX announcement of 28 November 2012 following the completion of the Bateman Phase 1 definitive feasibility study (“**Phase 1 DFS**”). Of this amount, \$134M falls within the battery limits of the Studies for comparative purposes. A total project capital cost estimate of \$315M was published in January 2014 (ASX announcement dated 30 January 2014) which included the process plant of \$145M and other

The significant capital cost saving is due to the success of the beneficiation stage with initial test work demonstrating approximately 75% of the mass from run-of-mine ('RoM') ore being rejected whilst recovering 84% of the uranium content in the ore (refer to Toro's ASX announcement of 5 December 2016). Such a reduction in mass allows the hydrometallurgical facility to be reduced in size to **0.45Mt/a**. The large Counter Current Decantation ("CCD") tanks, estimated at \$37M in the Phase 1 DFS, are no longer required (refer to Toro's ASX announcement of 5 December 2016).

Processing operating costs, which accounted for approximately 65% of total operating costs generated in Phase 1 DFS were previously estimated at \$53.8/t ore processed based on the Phase 1 DFS flowsheet and design. The studies from 2016 estimate this cost at \$16.1/t RoM feed.

The decrease in operating cost is due primarily to the substantial reduction in reagent use, decreased power requirement with the elimination of the CCD tanks and reduced size of the hydrometallurgical circuit. Included in the processing operating cost is reagent consumption, electrical power based on natural gas supplied at \$13/GJ, steam, labour, maintenance and consumables and general administration.

Further scoping level testing in 2017 continued to highlight the opportunity to substantially reduce the capital and operational cost of the processing facility for the Wiluna Uranium Project (refer to Toro's ASX announcement of 30 January 2018). Further successes from the 2017 testing included:

- successful testing of larger screen sizes in the conventional de-sliming process reduced the need for specialised screening equipment;
- vacuum filtration of Clay80 ore, the dominant ore type at Lake Maitland, successfully removed saline water from the de-slimed concentrate at filtration rates equal to or greater than those achieved in the preliminary test work, which confirms the potential for a significant reduction in reagent use and the potential to replace direct precipitation with ion exchange in the processing circuit;
- Heavy Liquid Separation (HLS) testing has indicated that a gravity separation process will be an efficient method of rejecting two major consumers of reagents in the leach, gypsum and celestine, from the coarse component of the two main ore types; and
- gravity separation presented itself as a potentially effective method of further beneficiating the low grade coarse component of already beneficiated ore.

The BPD Studies to date have not considered capital or operating costs outside the battery limits of the processing plant. The BPD Studies included flow sheet design and capital and operating cost estimates from the RoM pad through to discharge of tailings and final finished product preparation. Accordingly total project capital costs and operating cost forecasts and revenue production forecasts have not yet been determined.

The continuation of the BPD Studies is a significant step forward to substantiate the potential of these significant cost savings and to identify further opportunities to improve the economics of the Wiluna Uranium Project. The revised cost structure provides Toro with the opportunity to consider the optimal scale of the project, in particular the mining rate and uranium concentrate production as well as reviewing the procurement and construction strategies. A revised mining study inclusive of in-pit tailings management and rehabilitation and an assessment of project services, utilities and

items outside of the terms of reference for the Studies including mining fleet (\$27M), power plant and services (\$43M), infrastructure and other services (\$31M), EPCM and contingency fees (\$69M).

site infrastructure, EPCM and contingency would be required before revised total project capital and operating costs could be published.

ENDS

FURTHER INFORMATION:

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Toro's flagship asset is the 100% owned Wiluna Uranium Project, consisting of six calcrete hosted uranium deposits. The project is located 30 kilometres southwest of Wiluna in Central Western Australia. All deposits have received government approval for mining, providing the Wiluna Uranium Project with the opportunity to become Western Australia's first uranium mine. Toro will maximise shareholder returns through responsible mine development and asset growth.

www.toroenergy.com.au

FORWARD LOOKING AND CAUTIONARY STATEMENTS

Forward Looking Statements

This announcement may contain certain "forward-looking statements" which may not have been based solely on historical facts, but rather may be based on the Company's current expectations about future events and results. Where the Company expresses or implies an expectation of belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, forward looking statements are subject to risks, uncertainties, assumptions and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Such risks include, but are not limited to Resource risk, metals price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, as well as political and operational risks in the Countries and States in which we operate or sell product to, and governmental regulation and judicial outcomes. For a more detailed discussion of such risks and other factors, see the Company's Annual Reports, as well as the Company's other filings. Readers should not place undue reliance on forward looking information. The Company does not undertake any obligation to release publically any revisions to any "forward looking statement" to reflect events or circumstances after the date of this announcement, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.



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