

ASX RELEASE

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Successful beneficiation studies highlight potential for substantial cost reduction for Wiluna Uranium Project

Toro Energy Limited (ASX:TOE) announces **Beneficiation** and **Process Design** studies ('Studies') for the Company's 100% owned Wiluna Uranium Project in Western Australia have highlighted the opportunity to substantially reduce the size and cost of the processing facility.

The key outcome of the Studies is a re-design of the process flow sheet that reduces the capital cost of the proposed hydrometallurgical plant by more than 40% to approximately **\$78M** and processing operating cost to approximately **\$16/t** run-of-mine ('RoM') feed.

Major advances include:

- **A beneficiation circuit which delivers 75% mass reduction with 84% uranium recovery;**
- **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; and**
- **The introduction of ion exchange which removes the need for evaporation ponds.**

Beneficiation testwork was successful on each of the seven samples selected from the Centipede/Millipede and Lake Maitland deposits and a new process flow sheet was developed based on the higher clay lithologies from Lake Maitland. Approximately 55% of the Mineral Resources at Centipede/Millipede and Lake Maitland and 75%-80% at Lake Maitland are clay dominant.

The success of the Studies 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.

Flow sheet innovation has been a critical part of the Company's recent strategy to better position the Wiluna Project in a lower forecast uranium price environment.

Cautionary Statement

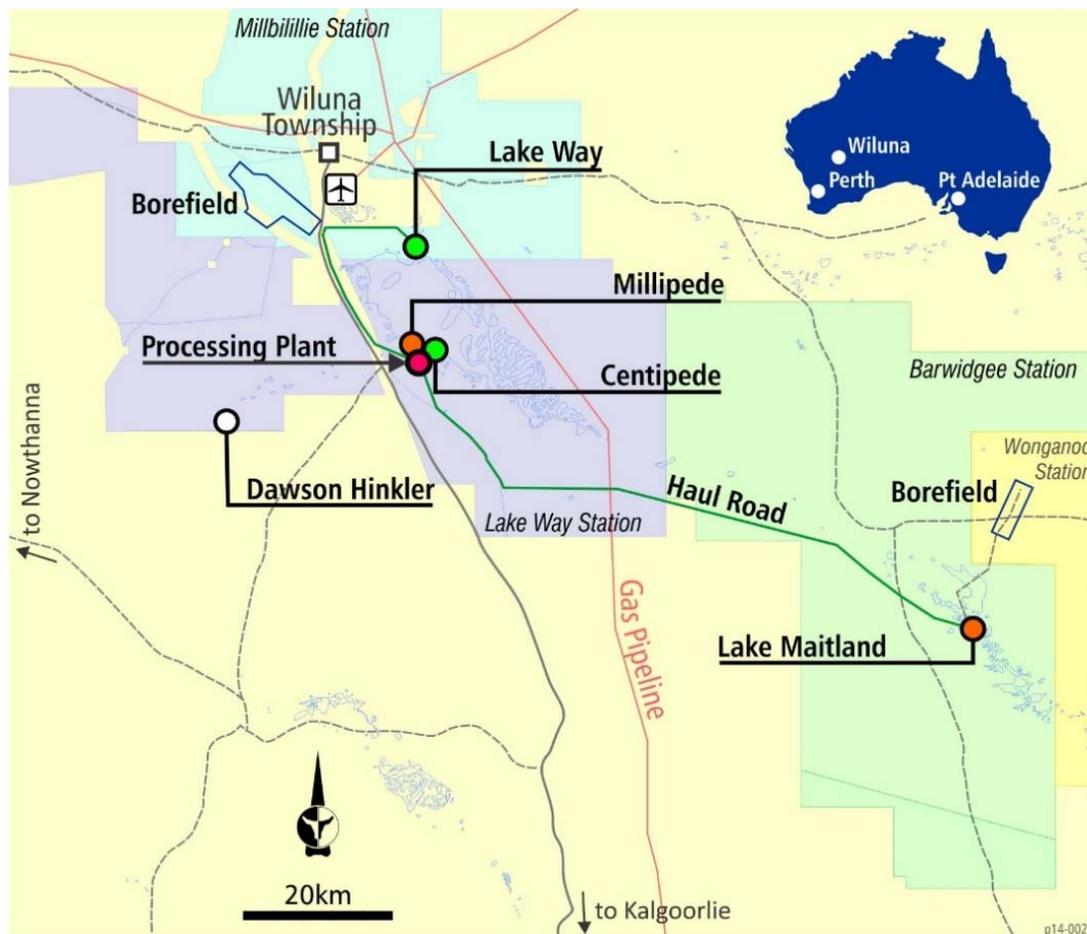
The Studies are based on lower-level technical and economic assessments and are insufficient to provide certainty that the conclusions of the Studies will be realised. Further, the Company cautions that there is no certainty that the forecast financial information contained in the Studies will be realised. 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.

Beneficiation and Process Design Study Details

Strategic Metallurgy were commissioned in May 2016 to undertake studies to determine whether a beneficiation processing step could be applied to treat certain ores from the Centipede/Millipede and Lake Maitland deposits and then assess the process design and processing plant capital and operating cost implications. The Studies are estimated at a +35% / -25% accuracy.

The Studies have not considered capital or operating costs outside the battery limits of the processing plant. The 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 and production forecasts have not yet been determined.

Figure 1: Wiluna Uranium Project - Location



Testwork

The beneficiation test work was conducted on seven drill core samples from the Centipede/Millipede and Lake Maitland deposits. Samples containing higher clay content performed best, (see Table 1) although the de-sliming stage delivered increased uranium grades across all beneficiated concentrates. Over 55% of the Mineral Resources at Centipede/Millipede, Lake Maitland and Lake Way (at a 200 ppm U₃O₈ cut-off) are amenable to the beneficiation step. The balance of the Mineral Resources requires further investigation.

Table 1: Beneficiated Concentrates Produced

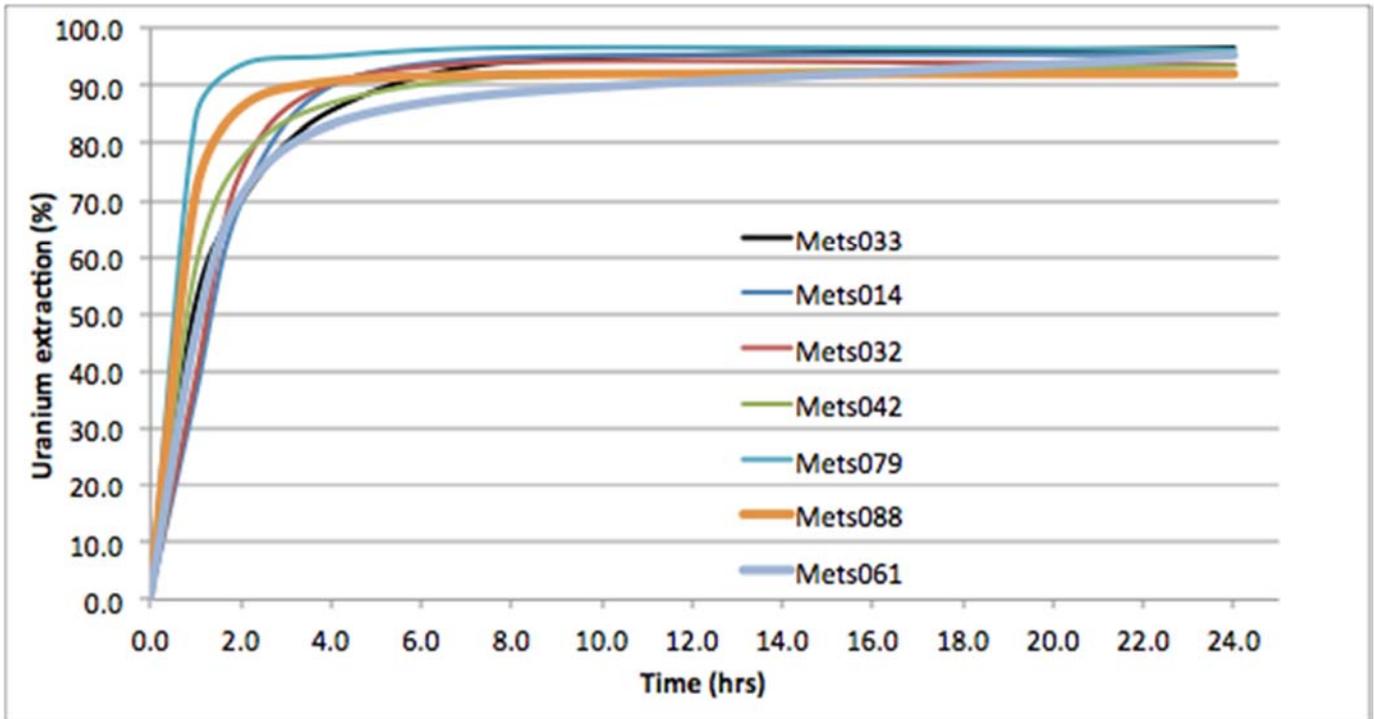
Sample Details			Concentrate Produced		
Deposit & ID	Lithology	Head (U ppm)	Weight Distr (%)	Grade (U ppm)	Uranium Recovery
Lake Maitland Mets061	Clay80	1,782	31.7	5,228	93%
Lake Maitland Mets088	Clay80	192	23.2	612	74%
Lake Maitland Mets079	Clay80*	596	43.1	857	62%
Centipede Mets033	Sedimentary clay	1,349	28.3	4,242	89%
Centipede Mets042	Semi-consolidated nodular	1,593	45.5	2,626	75%
Centipede Mets032	Semi-consolidated nodular	1,119	65.5	1,298	76%
Millipede Mets014	Calcareous clay	358	21.4	1,288	77%

The beneficiation process defined by Strategic Metallurgy involves the application of conventional screens, and cyclones (for de-sliming) to reject low grade coarse material and ultra-fine slimes to produce a high grade concentrate for leaching. The beneficiation step is a physical separation process that does not involve chemicals and produces a benign waste stream, similar to mined waste.

A new pre-leach filtration step has been introduced that preliminary test-work has shown to remove as much as 95-98% of the saline process water from the beneficiated concentrates and produce a relatively dry final filter cake for leaching (see Figure 2). This filtration step includes washing the filter cake with desalinated water sourced from the approved West Creek borefield and the Lake Maitland borefield, recommended by EPA for approval¹.

¹ Refer ASX announcement dated 6 September 2016 noting EPA recommendation for the approval of the Extension to the Wiluna Uranium Project.

Figure 2: Leach Extractions

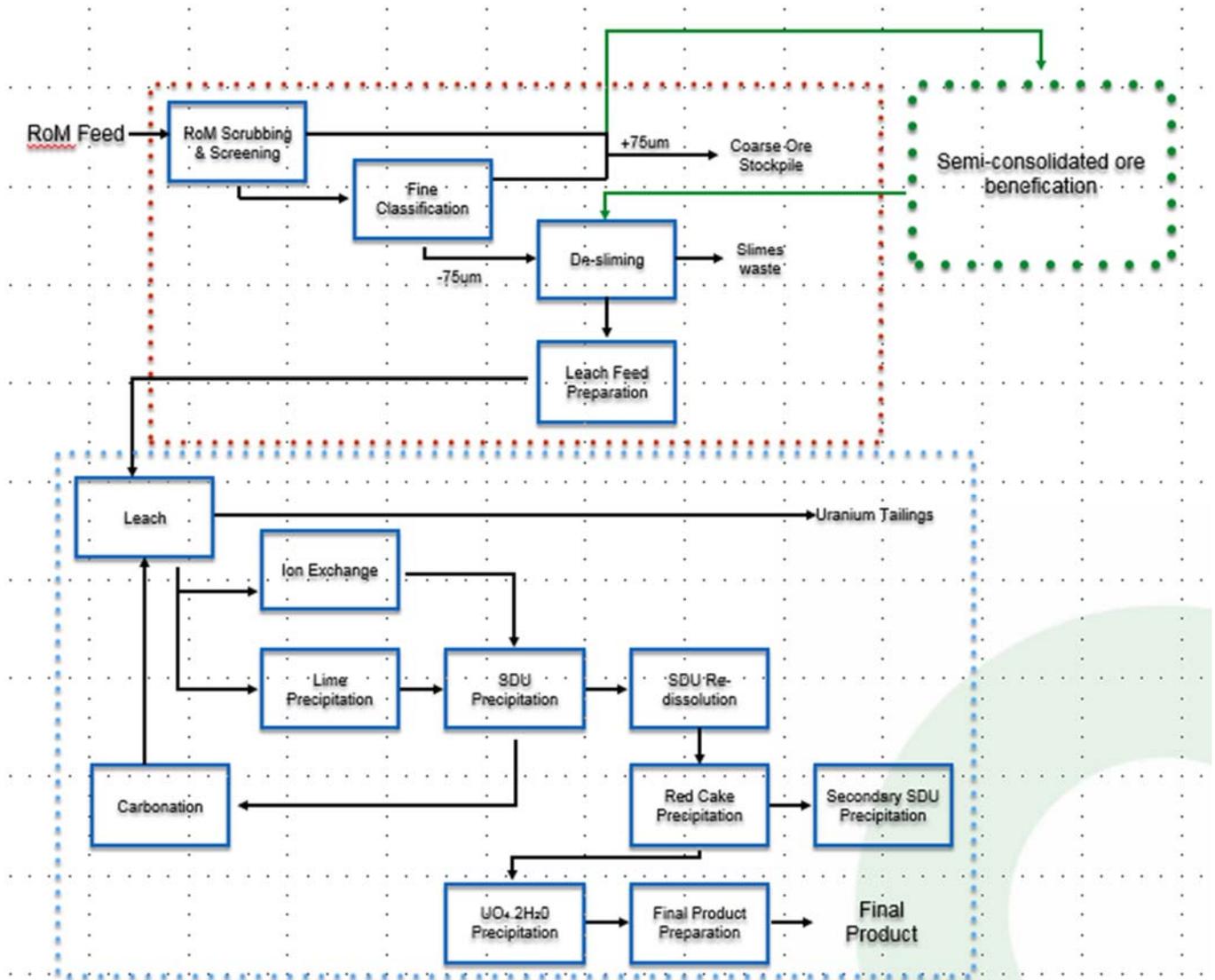


The significant reduction in mass feeding the leach, along with the ability to wash the feed of saline water, substantially reduces quantity of reagents (NaOH, Na₂CO₃ and NaHCO₃) required.

Revised Process Flow Sheet

Data from the beneficiation, filtration and leaching testwork was input into a new metallurgical simulation model that has created a revised process flowsheet (Figure 3).

Figure 3: Potential revised Wiluna Uranium Project process flow sheet



Project Costs

The improvements to the project flow sheet has 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 would bring the total capital cost of the beneficiation and hydrometallurgical facility down to approximately **\$78M**, from approximately **\$134M²**.

² 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

Table 2: Capital Cost Estimate for Processing Plant

Plant Item	AUD
Feed preparation and beneficiation	\$32.8M
Hydrometallurgical plant up to SDU	\$13.9M
SDU Re-dissolution	\$2.6M
Red Cake Precipitation	\$2.8M
Product Precipitation	\$1.4M
Final product precipitation	\$15.7M
Secondary SDU Precipitation	\$2.6M
Reagents	\$3.5M
Water	\$2.3M
Total	\$77.5M

The significant capital cost saving is due to the success of the beneficiation stage with testwork demonstrating approximately 75% of the mass from RoM ore being rejected whilst recovering 84% of the uranium content in the ore. The reduction in mass allows the hydrometallurgical facility to be reduced in size to **0.45Mt/a**. The large CCD tanks, estimated at \$37M in the Phase 1 DFS, are no longer required.

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 estimate this cost at \$16.1/t RoM feed.

The decrease 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 Work

Further studies are planned in 2017 to expand testwork to improve the confidence of the beneficiation, filtration and leaching processes and address those lithologies of the Centipede/Millipede and Lake Maitland deposits that contain lower clay. The revised cost structure provides Toro with the opportunity to

published in January 2014 (ASX announcement dated 30 January 2014) which included the process plant of \$145M and other 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).

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 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 Energy's vision is to be Australia's next uranium producer. Toro will maximise shareholder returns through responsible mine development and asset growth.

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. The Centipede and Lake Way deposits have received government approval for mining, providing the Wiluna Project with the opportunity to become Western Australia's first uranium mine.

Toro also owns a highly prospective suite of exploration properties through Toro's own discovery at the Theseus Project on the Western Australian/Northern Territory border. The company is also pursuing growth opportunities through accretive uranium project acquisitions.

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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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