

ASX RELEASE

4 May 2022

PIT RE-OPTIMISATION SIGNIFICANTLY INCREASES POTENTIAL ORE AT LAKE MAITLAND URANIUM DEPOSIT, WA**HIGHLIGHTS**

- Pit re-optimisation work completed by SRK Consulting validates Lake Maitland as a stand-alone uranium-vanadium operation and the preferred first resource to be mined for the greater Wiluna Uranium Project.
- Study incorporates improvements and potential cost reductions to processing from Toro's R&D activities in recent years together with the production of vanadium (V_2O_5) as a by-product.
- Lake Maitland mining pit re-optimisation study outlines the following key improvements when compared to Lake Maitland's mining pit scheduled as part of the greater Wiluna Uranium Project:
 - *Significant lowering of the average grade of U_3O_8 for the potential Lake Maitland ore to 370 ppm U_3O_8 from 631 ppm U_3O_8 ;*
 - *167% increase in potential ore to 35.2 Mt from 13.2 Mt;*
 - *50% increase in potential uranium production to 23.5 Mlbs U_3O_8 from 15.8 Mlbs U_3O_8 ;*
 - *Potential production of 12.2 Mlbs of vanadium pentoxide (V_2O_5) as a by-product;*
 - *An increase in the size of the Lake Maitland mining pit with a revised pit rim cut-off grade of 109ppm U_3O_8 , well below the 200ppm U_3O_8 cut-off for the stated resource; and*
 - *An 74% increased forecast mine life to 17.6 years from 10.1 years despite a 54% increase in processing throughput for the revised processing plant.*

HIGHLIGHTS CONTINUED OVER PAGE**Cautionary Statement**

The studies referred to in this announcement are based on lower-level technical & 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 announcements dated 1 February 2015, 1 February 2016 & 14 December 2021 showing the Lake Maitland deposit has sufficient Mineral Resources to support a 2 Mt/pa mining operation.

HIGHLIGHTS CONTINUED BELOW

- Prior optimisations of greater Wiluna Uranium Project result in all four (4) deposits producing 30.2 Mlbs U_3O_8 based on the same US\$70/lb long term sale price (refer to ASX announcement of 30 January 2014). The Study shows the Lake Maitland operation can now alone potentially produce 78% of that amount, being 23.5 Mlbs U_3O_8 (scoping level calculations).
- Material haulage cost reduction by relocating processing plant to Lake Maitland from Centipede.
- The re-optimisation results are based on the following material assumptions:
 - US\$70/lb U_3O_8 price and US\$5.67/lb V_2O_5 price;
 - AUD:USD exchange rate of US\$0.75; and
 - most recent Lake Maitland resource estimation (refer ASX announcement 14 December 2021),

noting that current prices are US\$53.00/lb U_3O_8 (spot – UxC 2 May 2022) and US\$11.10 V_2O_5 (Europe – 2 May 2022 – www.vanadiumprice.com).

- Sensitivity analysis demonstrates a stand-alone Lake Maitland uranium-vanadium operation is potentially viable at a U_3O_8 price significantly lower than the modelled US\$70/lb.
- A mining schedule developed from the pit optimisation outcomes will now be used to estimate the capital cost of a stand-alone Lake Maitland uranium-vanadium operation at a scoping level of accuracy.

Toro Energy Limited (ASX: **TOE**) (**Toro** or the **Company**) is pleased to announce that the scoping level re-optimisation of the mining pit at the Lake Maitland Uranium Deposit for a stand-alone operation has been completed as part of the Lake Maitland Scoping Study. The Lake Maitland Uranium Deposit is located within Toro's 100% owned Wiluna Uranium Project in Western Australia's northern Goldfields region.

The re-optimisation incorporates the production of vanadium (V_2O_5) as a by-product and recent improvements and potential cost reductions to processing.

Pit Re-Optimisation Completed by SRK

The work carried out by SRK Consulting (**SRK**) has shown that a stand-alone Lake Maitland operation has the potential to substantially reduce the average grade of the Lake Maitland resource that may be viable to mine compared to its mining as part of the greater Wiluna Uranium Project (refer to **Figure 1**). Incorporating the recent processing improvements and potential cost reductions means significantly more of the resource would be potential ore and therefore, ultimately, a very large increase in U_3O_8 could be produced from Lake Maitland. The stand-alone Lake Maitland operation would also collect revenue from the production of V_2O_5 .

Pleasingly for Toro shareholders, this makes a stand-alone Lake Maitland operation a genuine option for Toro going forward. It also highlights the potential for the improvements gained through the recent period of scoping level research to benefit all of the deposits of the Wiluna Uranium Project (and not just Lake Maitland) to a significant extent.

Commenting on the positive outcomes from the pit re-optimisation at Lake Maitland, Toro's Executive Chairman, Richard Homsany, said:

"The re-optimisation of the Lake Maitland pit is a very significant step towards realising the true value and potential of our 100% owned Wiluna Uranium Project in WA. These results have materially elevated, at a scoping study level, the potential ore to be mined and U₃O₈ to be produced at Lake Maitland.

"Our investment in R&D activities over a number of years has led to potential:

- OPEX and CAPEX cost efficiencies of material economic significance;*
- vanadium production at very low marginal cost, and*
- major increase in Lake Maitland U₃O₈ production over an extended mine life."*

"Re-locating the processing plant from Centipede to Lake Maitland reduces the haulage cost significantly to potentially result in a very significant economic benefit to a stand-alone Lake Maitland operation. These outstanding Study outcomes provide us with confidence that Lake Maitland will be transformational for the value of the Wiluna Uranium Project."

"Toro is now very well positioned to continue enhancing value at Lake Maitland over the coming months. We look forward to using the pit optimisation outcomes to advance the engineer's evaluation of the capital cost of a stand-alone Lake Maitland uranium-vanadium operation. We are enthusiastic about the value creation of Lake Maitland applying to the benefit of the Wiluna Uranium Project as a whole."

"Toro remains committed to disciplined, targeted and cost-effective work programmes across its core assets. We also look forward to providing further updates from the diamond drilling campaign currently underway at our Dusty Nickel Project."

Significant Advantages at Lake Maitland

Analysis of the pit re-optimisation reveals three (3) main economic advantages to the stand-alone Lake Maitland operation that are driving the substantial improvements in the potential value of the resource:

- (1) the reduction in costs due to improvements to the processing circuit;**
- (2) the increased revenue from the addition of V₂O₅ production; and**
- (3) the large reduction in haulage cost arising from relocating the processing plant at Centipede deposit to adjacent to the pit at Lake Maitland.**

To assess the financial impact of all of the processing improvements accruing to the stand-alone operation scenario at Lake Maitland, the pit re-optimisation was compared to an optimisation employing the costs, parameters and assumptions associated with previous optimisations, where Lake Maitland is mined as part of the greater Wiluna Uranium Project (and therefore prior to the substantial improvements referred to above) but using the most current resource estimation (refer to ASX announcements of 1

February 2016 and 14 December 2021), the same AUD:USD exchange rate (US\$0.75) and the same U_3O_8 long term sale price (US\$70/lb – more detail below).

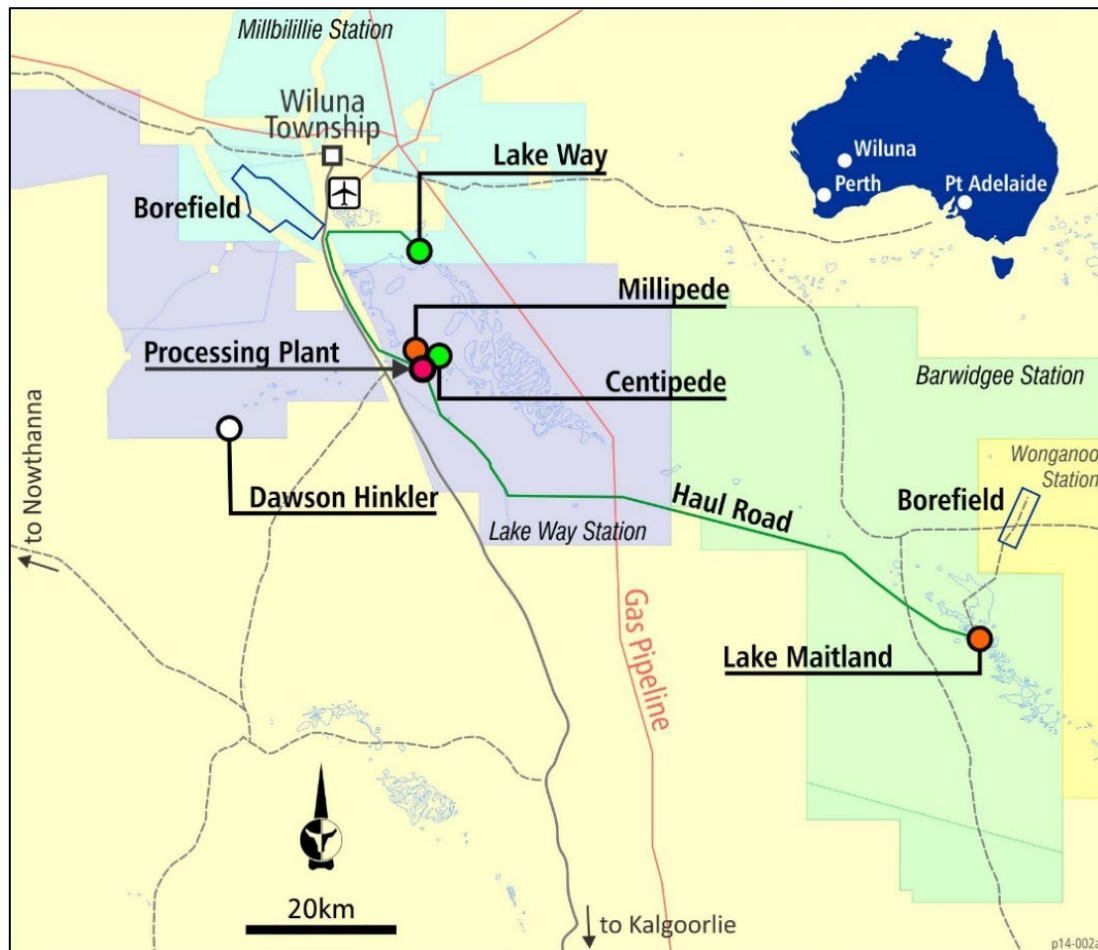


Figure 1: Location of Lake Maitland within the Wiluna Uranium Project with the current location of the Processing Plant for the greater Project option.

Study Results

The results of the re-optimisation along with the comparative study results are presented below in **Table 1** as are the key parameters, assumptions and inputs. Further details of the key assumptions and inputs are also disclosed below.

At a comparative (1) US\$70/lb U_3O_8 long term sale price (and assuming a US\$5.67/lb long term V_2O_5 price) and (2) AUD:USD exchange rate of USD\$0.75, when a stand-alone Lake Maitland operation is compared to if it were one of the four pits mined as part of the greater Wiluna Uranium Project:

- The average grade of the potential ore in the re-optimised Lake Maitland pit would be **370ppm U_3O_8 compared to 631ppm U_3O_8** .
- This results in over **2.6 times (167%) more potential ore** in the Lake Maitland deposit, some 35.2 Mt compared to 13.2 Mt with the greater Wiluna operation (that has the unimproved plant at Centipede).
- The pit would expand so that the pit rim cut-off grade (**COG**) would be 109ppm U_3O_8 , being a much lower grade than the current reporting cut-off for the deposit of 200ppm U_3O_8 . The current greater Wiluna Uranium Project plan has a pit rim COG at 320ppm U_3O_8 .

- Despite increasing the throughput of potential ore into the new processing circuit, which would be at the front end of the beneficiation plant, from the unimproved plant's planned capacity of 1.3 Mtpa to the revised plant's planned capacity of 2 Mtpa (**a 54% increase in throughput**), there is still an overall **74% increase in mine life** from 10.1 years to 17.6 years.
- The mine scheduling demonstrates that over the course of the 17.6 year mine life the operation would produce a total of 10.7kt (**23.5Mlbs**) of U_3O_8 and 5.5kt (**12.2 Mlbs**) of V_2O_5 assuming recoveries of 82% and 60% respectively (based on scoping level metallurgical test work). This is an **increase in potential U_3O_8 production from a Lake Maitland mining pit of approximately 50%** in comparison to production as part of the greater Wiluna Uranium Project where some 7.2kt (15.8 Mlbs) of U_3O_8 could potentially be produced (which is based on an 86% overall recovery in the processing plant prior to incorporating improvements and the production of V_2O_5 as a by-product - as detailed in the ASX announcement of 30 January 2014).

It is worth noting that previous optimisations of the greater **Wiluna Uranium Project** have the four pits **producing a total 30.2 Mlbs of U_3O_8** based on the same US\$70/lb long term sale price (refer to ASX announcement of 30 January 2014) whereas **the newly proposed stand-alone Lake Maitland operation can alone potentially produce 78% of that amount (23.5 Mlbs) from a single pit** (scoping level calculations).

Sensitivity Analysis

Given that the comparative base case of \$70/lb U_3O_8 is considerably higher than the current U_3O_8 spot price of US\$53.00/lb (UxC as of 2 May 2022), sensitivity analysis of the pit optimisation at incrementally lower U_3O_8 prices was also undertaken by SRK without any detailed scheduling.

Although not presented in Table 1, the results of the sensitivity analysis highlighted that **even at a sale price of US\$49/lb**, a stand-alone uranium-vanadium mine at Lake Maitland could have **28.8Mt of potential ore** (inclusive of 5% ore loss and 5% dilution), which could still result in **9.9 kt (over 21.5 Mlbs) of U_3O_8** produced over the life of mine.

INPUTS	UNIT	Part of Wiluna Pre-improvements	New Proposed Stand-alone
Processing plant location		Centipede-Millipede	Lake Maitland
Processing circuit throughput	Ore Mtpa	1.3	2
Sale Price of U ₃ O ₈	US\$/lb U ₃ O ₈	70	70
Sale Price of V ₂ O ₅	US\$/lb V ₂ O ₅	Not considered	5.67
Royalty	%	5.5	5.5
Exchange Rate	AU\$:US\$	0.75	0.75
Discount Rate	%	8	8
Process metal recovery - U ₃ O ₈	% U ₃ O ₈	86	82
Process metal recovery - V ₂ O ₅	% V ₂ O ₅	Not considered	60
Ore loss	%	5	5
Waste dilution	%	5	5
Offsite Charges	US\$/lb U ₃ O ₈	0.5	0.5
Geostatistical technique for resource		Ordinary Kriging only	Ordinary Kriging only
Mining technique		surface miner	truck and shovel
RESULTS			
Pit Rim COG	ppm U ₃ O ₈	320	109
Total Rock tonnes mined	Mt	32.1	76.9
Ore tonnes (potential)	Mt	13.2	35.2
Waste tonnes	Mt	18.9	41.7
Waste:Ore (potential) strip ratio	t:t	1.43	1.18
Average U ₃ O ₈ grade of Ore (potential)	ppm	631	370
Average V ₂ O ₅ grade of Ore (potential)	ppm	-	256
Potential U ₃ O ₈ produced (approximate)	MIbs	15.8	23.5
Potential V ₂ O ₅ produced (approximate)	MIbs	0	12.2
Expected mine life (approximate)	Years	10.1	17.6

Table 1: Results of the comparative study between the re-optimisation of the Lake Maitland mining pit based on the newly considered stand-alone Lake Maitland operation incorporating all recent improvements to the processing plant, changes to mining technique and the production of V₂O₅ as a by-product, and the mining pit based on previous optimisations prior to the improvements, changes and vanadium production but using the same most recently updated resource estimation for the Lake Maitland deposit and assuming a U₃O₈ sale price of US\$70/lb and an AUD:USD exchange rate of US\$0.75 as per the prior study (see text for details)

Key assumptions and parameters used in the re-optimisation

The re-optimisation of the Lake Maitland mine assumed a stand-alone operation that produced vanadium (as V₂O₅) as a by-product with the processing plant, which includes a beneficiation circuit at the front end, built next to the mining pit at Lake Maitland (refer to **Figure 1** for the location of Lake Maitland). The new Lake Maitland processing circuit design has a throughput capacity of 2 Mtpa from the start of the beneficiation circuit (refer to ASX announcement of 7 March 2019) which was used in the re-optimisation.

All of the operating costs associated with this new processing circuit (refer to ASX announcements of 8 February 2021, 11 February 2021, 6 April 2021 and 15 June 2021) were also included in the calculations. Other costs, such as power, staffing and product transport, were updated to approximate more current pricing with a scoping study level of accuracy.

The re-optimisation utilised the most recent resource estimation and resource block model of the Lake Maitland deposit that included the integration of V₂O₅ into the U₃O₈ resource (refer to the ASX announcements of 1 February 2016 for details of the U₃O₈ estimation and 14 December 2021 for details of the integration of V₂O₅).

After consideration of the geology at Lake Maitland and the obvious effect economic efficiencies were having on potential economic grade cut-offs, Toro and SRK agreed to change the mining method from the use of a surface miner as proposed in the greater Wiluna Uranium Project (refer to ASX announcement 30 January 2014), to a truck and shovel mining methodology after dewatering the deposit. The cost of the new method per tonne of potential ore was estimated to a scoping study level of accuracy and included in the re-optimisation.

The main financial parameters used included a discount rate of 8%, a 5.5% royalty consideration and an AUD:USD exchange rate of US\$0.75, similar to the recent experience. A long term U_3O_8 sale price of US\$70/lb was used as a base case, which has been used in past optimisations of the greater Wiluna Uranium Project (refer to ASX announcement of 30 January 2014).

To be conservative, SRK also performed a sensitivity analysis on the U_3O_8 price by optimising the pit at incrementally lower U_3O_8 prices without detailed scheduling. The results of the sensitivity analysis are not discussed in detail in this announcement but have been used by Toro as an approximate indication of the viability of the Lake Maitland stand-alone uranium-vanadium operation at U_3O_8 prices closer to current. Further work would be needed to make these calculations more accurate and valid.

As already stated, and as is the focus of this ASX announcement, a study was completed to assess the difference on the economic impacts of the Lake Maitland mining pit between the newly proposed stand-alone Lake Maitland mining operation and the still currently planned greater Wiluna Uranium Project operation with the previous processing circuit design located at Centipede-Millipede (refer to **Figure 1**). To do this an optimisation of the pit was completed assuming the 'older' processing circuit design and associated operating costs with its 1.3 Mtpa ore throughput capacity, but using the same current resource estimation for the deposit and current AUD:USD exchange rate of US\$0.75. The comparative optimisation assumed that the 'older' processing plant was located at Centipede-Millipede and did not produce V_2O_5 as a by-product. The comparative optimisation was based on a US\$70/lb U_3O_8 long term sale price as has been used in previous optimisations for the greater Wiluna Uranium Project (refer to ASX announcement of 30 January 2014).

It should also be noted that all optimisations presented here have utilised the Lake Maitland resource estimation based on Ordinary Kriging (**OK**) without the extra refining geostatistical step of Localised Uniform Conditioning (LUC). The latter has been used in the reporting of U_3O_8 resources by Toro, as it has in the most recent estimations (see JORC Table 1 in ASX announcement of 1 February 2016), because it is believed to suit the higher grade focus of the chosen mining method with the use of the surface miner. However, the use of OK only is considered more suited for scheduling in the re-optimisation due to the results showing a far lower dependency on grade and a subsequent change to a truck and shovel mining method.

Next Steps

Toro will now use the results of the re-optimisation to feed back to the metallurgical engineers for final optimisation of throughput before costing the build of the beneficiation and processing circuit. Based on feedback from the metallurgical work a final iteration of the life of mine production schedule will be undertaken so an estimate of the capital cost of the mine to a scoping level of accuracy can be developed, for a proposed stand-alone Lake Maitland uranium and vanadium mining and processing operation.

As previously advised, the date for the substantial commencement condition contained in the State environmental approval for the Wiluna Uranium Project, granted pursuant to Ministerial Statement 1051 (**MS 1051**), has passed. Toro considers, and has sought advice to confirm, that the environmental approval granted by MS 1051 will remain valid notwithstanding that substantial commencement did not occur by the date specified in MS 1051, and that it will be open to the Company to apply under the *Environmental Protection Act 1986* (WA) for an extension of time for that condition at a later time during the life of the approval. It is also envisaged that favourable results from the studies detailed in this announcement may also necessitate an amendment to the proposal the subject of each environmental approval received.

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

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FURTHER INFORMATION:

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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.

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 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 to ASX announcements dated 1 February 2015, 1 February 2016 and 14 December 2021 which show the Lake Maitland deposit has sufficient Mineral Resources to support a 2Mt/a mining operation. The estimated mineral resources underpinning the Studies have been prepared by competent persons in accordance with the current JORC Code 2012 Edition and current ASX Listing Rules. Toro has concluded that it has a reasonable basis for providing the forward looking statements included in this announcement. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.