

ASX Release April 3, 2024

## Honeymoon Uranium Project, South Australia

# Boss set for first drum of uranium after commissioning the Ion Exchange circuit

## IX columns working precisely to plan, marking completion of the final technical milestone in the Honeymoon re-start strategy

**Boss Energy Limited** (ASX: BOE; OTCQX: BQSSF) is pleased to announce that it has successfully passed the final technical milestone in its Honeymoon re-start strategy, paving the way for the first drum of uranium to be filled in the next two weeks.

As part of this critical phase, uranium-rich lixiviant from the wellfields has filled the processing plant Ion-Exchange (IX) column, where loaded resin will result in production of concentrated high-grade eluate.

Boss Managing Director Duncan Craib said: "Since acquiring Honeymoon, Boss' strategy has been to increase the uranium tenor in the wellfield feed solution to the plant and develop a larger processing facility utilising Ion Exchange technology.

"This approach is to improve the economics of the project by increasing production rates and reducing operating costs.

"We have now achieved both of these key goals and as a result are set to fill our first drum with uranium in coming days".

### Commencement of production activities

Honeymoon mining activities are ramping up to support the production profile. Lixiviant (a leaching fluid) is now being optimised and continuously injected into the orebody through the injector wells. The lixiviant moves through the ore zones within that horizon, dissolving the uranium mineralisation at its origin (i.e. "in situ") and producing a uranium-rich fluid which is then pumped to the surface through the extractor wells. The installed pipelines at surface are now transporting the pregnant, uranium-rich lixiviant from the wellfields to the Honeymoon processing plant and being fed into the IX circuit for uranium recovery.

The IX circuit adsorption columns have been filled with resin to effectively recover the high tenors of uranium from the pregnant leach solution (PLS). The loaded resin is being transferred to the elution columns where the resin is eluted to recover uranium to a concentrated high-grade eluate.

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### FOR FURTHER INFORMATION PLEASE CONTACT:


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www.bossenergy.com  
The logo for Boss Energy, featuring the word "Boss" in a large, bold, black sans-serif font with a stylized orange sunburst graphic behind the letter "O". Below "Boss" is the word "Energy" in a smaller, black, all-caps sans-serif font.

Next week, the concentrated high-grade eluate will be recovered through the upgraded precipitation circuit to produce  $U_6O_4$ , and then calcined to produce a high-quality saleable uranium oxide ( $U_3O_8$ ) product. This final stage is expected to take two weeks.

During the IX production process, uranium is being chemically extracted until the solution is said to be “barren”, or no longer rich in uranium. The remaining barren liquor will be refortified with acid and oxidant before it is recycled back to the wellfield to repeat the dissolution process.



**Figure 1.** All long-term supplier contracts finalised and all reagent tanks filled on Honeymoon

This ASX announcement was approved and authorised by the Board of Boss Energy Limited.

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