



OPERATIONAL UPDATE

# Highly successful quarter sees Boss perfectly positioned to capitalise on strengthening uranium market

**Boss Energy Limited** (ASX: BOE; OTCQB: BQSSF) is pleased to provide an operational update on the strong progress it has made towards its goal of being Australia's next uranium producer at its Honeymoon Project in South Australia.

Since July 2021, the spot price of uranium has risen from US\$32.40/lb to more than US\$50/lb and was US\$41.25/lb as at 5 October 2021. This compares with Boss' forecast all-in cost of US\$31.90/lb<sup>1</sup>.

As a result of the price increase, Boss' inventory of 1.25Mlb of U<sub>3</sub>O<sub>8</sub> had a spot market value of US\$51.56 million (A\$71.52 million)<sup>2</sup> at 5 October 2021. Boss paid US\$30.15/lb for this inventory in March 2021 for a total cost of US\$37.68M (A\$49.69M). This represents a book profit of A\$21.83 million.

In addition to this windfall, the inventory is of immense strategic value to Boss on several levels as it increases flexibility in project funding and offtake negotiations with customers in preparation to re-start production.

In a sign of the increasing strength of the uranium market and Honeymoon's status in the industry as a credible near-term producer, Boss received three requests for tender proposals from three countries with nuclear energy in recent weeks.

Following release of the highly successful Enhanced Feasibility Study for Honeymoon in June 2021, Boss has rapidly advanced key workstreams in preparation for a Final Investment Decision (FID).

In an industry which is short of project execution and operational experience, Boss succeeded in securing senior personnel to assist in finalising key aspects of Honeymoon's design and final equipment selection.

In parallel, Boss is accelerating development of its exploration strategy with a staged approach that has significantly expanded the global JORC resource at Honeymoon from 16.57Mlbs to 71.67Mlbs (~433% increase) since project acquisition in December 2015<sup>3</sup>.

<sup>1</sup> Refer ASX announcement dated 21 June 2021. All material assumptions underpinning the forecast financial information (and the production targets on which such forecast financial information is based) continue to apply and have not materially changed.

<sup>2</sup> Inventory valued at a U<sub>3</sub>O<sub>8</sub> spot price of US\$41.25/lb and an exchange rate of A\$1:US\$0.721 as at 5 October 2021.

<sup>3</sup> Refer to ASX: BOE announcement dated 25 February 2019. Refer Appendix 1 for Honeymoon JORC 2012 Resource.

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Boss Managing Director Duncan Craib said: “Utility buyers have been busy extending and modifying existing contracts to satisfy some near-term demand at advantageous terms in return for granting suppliers higher prices in the longer term.

“There is concern among utilities about the rising spot price and some of the more strategic utilities are in discussion with suppliers to be able to act if prices continue to rise.

“While the continued purchasing of U<sub>3</sub>O<sub>8</sub> by the Sprott Physical Uranium Trust will have a positive impact on the market by sequestering significant quantities of uranium and strengthening the uranium price, we can expect to see continued volatility until more nuclear power utilities enter the market.”

Mr Craib said Boss would continue to extend its advantage as the most advanced emerging uranium producer in Australia.

“We have a plant in care and maintenance, other significant production and storage infrastructure in place, we have formed an Owners’ Team to restart Honeymoon and we are moving through the FEED stage rapidly,” he said.

“By continuing to advance Honeymoon on several fronts while growing the uranium inventory, we can ensure we can capitalise on the rapidly turning uranium market at the moment of our choosing.”

## **Expansion of the Owners’ Team**

Boss was pleased to advise that it appointed Jonathan Owen as Project Manager of Honeymoon’s restart. Joining the established process plant Owners’ Team of Trevor Robinson (Process Manager), Merrill Ford (NIMCIX Specialist) and Jeremy Green (Structural Engineer), Mr Owen brings a strong focus on integrating Owners’ Team skills and project EPC execution.

South Australian based Ben Jeuken (GM Wellfield and Resources) and Jason Cherry (Geology Manager) further compliment this team to provide more focus on resource and wellfield development.

Boss deemed it important to move quickly to secure key personnel to deliver a detailed project execution plan to ensure wellfield development and construction activities on Honeymoon’s restart.

With much of the expertise in-house, a number of key milestones in preparation of production development are being accomplished, which will be reported on in the months to come.

## **Engineering process running ahead of schedule**

Boss is pleased to report that the critical planning tool of Front-End Engineering Design (FEED) studies are being actively progressed.

The Company is currently completing the process design and finalising site layouts and arrangements with certified data for Honeymoon. FEED is expected to be finished early in the March quarter, 2022, which will allow detailed design to commence immediately after a FID for Honeymoon.

With a focus on long lead equipment, Boss is engaging with preferred vendors on Honeymoon’s critical path items.

Completion and lock of designs of Piping and Instrumentation Diagrams is now 72% complete (69 of 95 diagrams), an increase from the 56 diagrams completed and announced on 6 September 2021.

Taking another key step in its strategy to re-start production at Honeymoon, Boss appointed Process E&I Pty Ltd for the electrical, instrumentation and control system.

## Appointment of key EPC contractor

With a global experience in delivering quality engineering solutions, Process E&I will lead the instrumentation controls and electrical engineering and provide back-office EPC services such as Owners' Team integration, data management and document control.

Process E&I will also meet Honeymoon's commissioning requirements, both in systems and personnel. This includes tendering, procurement and evaluation services.

Boss is also pleased to announce that it has made the following personnel appointments as part of FEED:

- Power infrastructure engineer;
- Structural and tankage design engineers;
- In-house structural, mechanical and piping designer;
- In-house pump and piping engineer.

These appointments will assist in finalising key aspects of the design and final equipment selection leading to FID.

The company conducted an onsite assessment of existing plant by the EPC contractor and Owners' Team in the final week of September 2021, focussing on the electrical and control aspect of the restart. The substations and process equipment are in great condition, remaining energised throughout the care and maintenance period with no obvious barriers to commissioning.

## Ramping up exploration activities

The Company's focus on exploration is aimed at increasing Honeymoon's production profile and extending its mine life. The strategy is two-fold:

1. Targeting the greenfields exploration targets to further advance current identified zones of potential high-grade mineralisation; and
2. Upgrading the satellite JORC resources of the Jason's and Gould's Dam Deposits.

This exploration strategy, with a staged approach, has significantly expanded the global JORC resource at Honeymoon from 16.57Mlbs to 71.67Mlbs (~433% increase) since project acquisition in December 2015.

Honeymoon's FEED engineering design allows for the plant to be expanded when the Company exploits the known satellite deposits and greenfield exploration potential. The objective is to drive a value accretive increase in production from nameplate production capacity 2.45Mlb of U<sub>3</sub>O<sub>8</sub>, and increased life of mine. This can be achieved by upgrading known JORC Resources outside of the Mining Licence and targeting greenfields exploration areas further from the known resources and thereby growing the project's NPV and free cashflow.

In coming weeks, Boss will report on the completion of the two trial seismic reflection surveys, concluding the geophysical component of its 2021 ADI exploration program. Drilling is then scheduled to commence

in November 2021 to simultaneously target the most prospective of Honeymoon's exploration areas, using the combination of passive and seismic reflection data along with the 3D suite of geological models created by the Boss team.

## **Strong Balance Sheet**

Boss recently released its Annual Report for the year ended 30 June 2021 which showed unrestricted cash and cash equivalents of A\$20.87 million, which excludes a fully cash-backed environmental bond of A\$8.8 million. The Company also holds inventory of 1.25Mlb of U<sub>3</sub>O<sub>8</sub>, which has a current spot market value of A\$71.52 million, and no long-term debt obligations.

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

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## APPENDIX 1

### Honeymoon Project Mineral Resource (lower cut-off of 250 ppm U<sub>3</sub>O<sub>8</sub>)

The global Honeymoon Mineral Resource stands at **71.6 Mlb (52.4Mt) with an average grade of 620ppm U<sub>3</sub>O<sub>8</sub>, using a cut-off grade of 250ppm**, as summarised in **Table 1**.<sup>4</sup>

In addition to the global Mineral Resource, the Honeymoon Uranium Project also has an Exploration Target range of **28 Mt to 133 Mt of mineralisation at a grade of 340 ppm to 1,080 ppm U<sub>3</sub>O<sub>8</sub> for a contained 58 Mlb to 190 Mlb U<sub>3</sub>O<sub>8</sub> (26,300 to 86,160 tonnes of contained U<sub>3</sub>O<sub>8</sub>), using a cut-off of 250ppm**. Note the potential quantity and grade of the Exploration Target range is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain whether future exploration will result in the definition of a Mineral Resource.

*Table 1: Summary of upgraded Mineral Resource for the global Honeymoon Uranium Project*

Resource Classification	Tonnage (Million Tonnes)	Average Grade (ppm U <sub>3</sub> O <sub>8</sub> )	Contained Metal (Kt, U <sub>3</sub> O <sub>8</sub> )	Contained Metal (Mlb, U <sub>3</sub> O <sub>8</sub> )
<b>Jason's (March 2017)<sup>5</sup></b>				
Inferred	6.2	790	4.9	10.7
<b>Gould's Dam (April 2016)<sup>6</sup></b>				
Indicated	4.4	650	2.9	6.3
Inferred	17.7	480	8.5	18.7
<b>Honeymoon Restart Area (January 2019)</b>				
Measured	3.1	1,100	3.4	7.6
Indicated	14	610	8.7	19
Inferred	7.0	590	4.1	9.1
<b>GLOBAL HONEYMOON URANIUM PROJECT</b>				
Measured	3.1	1,100	3.4	7.6
Indicated	18.4	630	12.0	25.5
Inferred	30.9	570	18.0	38.5
<b>Total</b>	<b>52.4</b>	<b>620</b>	<b>32.5</b>	<b>71.6</b>

#### *Reference to previous ASX announcements*

In relation to the results of the Enhanced Feasibility Study announced on 21 June 2021, the Company confirms that all material assumptions underpinning the production target and forecast financial information included in that announcement continue to apply and have not materially changed.

The mineral resource estimates in this announcement were reported by the Company in accordance with listing rule 5.8 on 25 February 2019. The Company confirms it is not aware of any new information or data that materially affects the information included in the previous announcement and that all material assumptions and technical parameters underpinning the estimates in the previous announcement continue to apply and have not materially changed.

<sup>4</sup> Refer to ASX: BOE announcement dated 25 February 2019.

<sup>5</sup> Refer to ASX: BOE announcement dated 15 March 2017.

<sup>6</sup> Refer to ASX: BOE Announcement dated 8 April 2016.

The exploration target referred to in this announcement was reported by the Company in accordance with listing rule 5.7 on 25 March 2019. The Company confirms it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the previous announcements continue to apply and have not materially changed. The exploration target does not include areas of the existing Mineral Resource and the potential quantity and grade reported are conceptual only in nature. Insufficient exploration has been conducted to estimate a Mineral Resource and it is uncertain whether future exploration will lead to the estimation of a Mineral Resource in the defined areas.

#### *Forward-Looking Statements*

This announcement includes forward-looking statements. These forward-looking statements are based on the Company's expectations and beliefs concerning future events. Forward-looking statements are necessarily subject to risks, uncertainties, and other factors, many of which are outside the control of Boss Energy, which could cause actual results to differ materially from such statements. Boss Energy makes no undertaking to subsequently update or revise the forward-looking statements made in this announcement, to reflect the circumstances or events after the date of this announcement.