



March 2022 Quarterly Report

Boss set for Final Investment Decision at Honeymoon Uranium Project

Pivotal quarter sees completion of front-end engineering studies, \$125m equity raising and sharp rise in uranium price

Boss Energy (ASX: BOE; OTCQX: BQSSF) is pleased to report on what was a pivotal quarter for the Company which has paved the way for it to make a Final Investment Decision (FID) on its Honeymoon Uranium Project in South Australia.

Boss Managing Director Duncan Craib said: “We are moving even more rapidly than we expected towards achieving our goal of becoming Australia’s next uranium producer.

“During the quarter, we completed the FEED study, which confirmed that the cost estimates in the Enhanced Feasibility Study remain accurate.

“This was followed by the \$125m equity raising, which was heavily over-subscribed.

“In parallel with these major achievements, the uranium price continued to increase sharply. As a result, the value of our 1.25M-pound stockpile of U₃O₈ has nearly doubled to A\$95M since we acquired it a year prior in March 2021.

“The combination of our highly successful raising and the valuable stockpile means we are fully funded through to production and cashflow at Honeymoon.

“As a result of this rapid progress on numerous fronts, we have entered the June quarter in a highly enviable position with preparation underway to make a FID and begin negotiations on offtake contracts”.

The key findings of the Honeymoon Enhanced Feasibility Study (EFS) include:

- Honeymoon is economically robust with an IRR of 47% at a US\$60/lb U₃O₈ price;
- Honeymoon is technically robust, with nameplate production of 2.45Mlb U₃O₈ per annum at an AISC of US\$25.60 over Life of Mine;
- Potential to extend beyond initial 11-year mine life through near-mine satellite deposits.

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Key achievements in the March Quarter

Equity Raising

On 16 March 2022, Boss announced it had launched a \$125 million equity raising to fund the development of its Honeymoon Uranium Project in South Australia to first production.

The capital raising comprised a two-tranche share placement (Placement) to raise up to \$120 million (before costs) and a Share Purchase Plan (SPP) which was offered to eligible Boss shareholders, with registered addresses in Australia or New Zealand, to raise up to an additional \$5 million (before costs).

On 18 March 2022, the Company confirmed it had successfully completed its bookbuild to raise \$120 million through the two-tranche Placement, with funds under tranche one, totalling approximately \$92.07 million (before costs), received on 23 March 2022. Tranche 2 of the Placement, to raise an additional \$27.93 million (before costs), is subject to shareholder approval to be sought at a General Meeting to be held on 29 April 2022.

On 8 April 2022, the Company confirmed it had successfully completed its \$5m SPP from eligible shareholders, having closed the SPP early due to receiving applications over \$17 million. Funds under the SPP were received on 12 April 2022.

The Placement and the SPP were priced at \$2.15 a share.

The equity raising allows Boss to:

- **Complete its FEED Study** – practically complete and remains materially in line with EFS¹ results
- **Fund development** – fund A\$113m development costs (including contingency) whilst maintaining A\$100m strategic inventory and balance sheet flexibility
- **Secure long-lead time items** – including IX columns & Water Treatment Plant to further de-risk development
- **Restart development** – post FEED and subject to COVID-19 logistic and sourcing issues, start construction with production expected c.18 months from commencement
- **Continue engagement with utilities for long-term contracts** – continue negotiations with potential offtake partners on the right terms to lock in robust margins. However, the raising ensures Boss is not reliant on offtake for development funding and remains well capitalised to maximise the benefit of the rising Uranium market
- **Well capitalised balance sheet** – use of equity to fund development de-risks project and retains maximum financial flexibility through commissioning and for future growth initiatives
- **Continue exploration focus** – substantial scope to extend LOM and/or increase production profile

¹ 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.

Completion of Front-End Engineering Design (FEED)

On 31 March 2022, Boss announced it had completed the FEED study.

All targeted outcomes were achieved by the FEED, including:

- Finalisation of key technical and strategic project decisions;
- Produce foundation technical documents for detailed design;
- Confirm product specifications;
- Refine budget, scope and schedule for the project;
- Initiate project procedures and systems; and
- Prepare tenders for key long lead procurement items.

The FEED study focussed on progressing the design of the processing plant and infrastructure as well as optimising the mining and wellfields to enable a detailed capital cost estimate to be prepared to a level of accuracy of +/- 10%.

Based on the FEED study, the total capital estimate for the development of Honeymoon is A\$113M (including a contingency allowance of approximately 8%) which is within 6.6% of the EFS estimate.

The FEED study assumes that the process plant is developed under an Engineering, Procurement, Construction and Management contract. Based on Boss' current plans, first uranium is expected to be produced at Honeymoon within 12 – 18 months of FID.

Completion of FEED enables Boss to proceed with detailed design to commence immediately after an FID for Honeymoon's restart is made. FID is expected after completion of the Tranche 2 Placement on or around 5 May 2022, whereupon the company will immediately commence with detailed engineering, procurement and construction works.

Boss also approved the Project Execution Plan (PEP) for Honeymoon's restart, which outlines the objectives, processes and strategies to be employed by the Company's personnel (Owner's Team) and appointed EPCM Engineer.

This plan will also establish a framework to ensure that project expectations and key performance indicators are met. Undertaken by the Owner's Team, the PEP will be the governing control document for all aspects of Honeymoon's execution phase of restarting operations and is designed to ensure the project meets targeted production requirements. The plan ensures that a consistent approach is adopted by all parties managing the project.

Base and Precious Metals Earn-in Agreement with First Quantum

On 10 February 2022, Boss announced it had entered into an agreement with First Quantum Minerals Ltd (TSE:FM) (FQM) in respect to base and precious metal rights over five tenements within the Honeymoon Uranium Project in South Australia.

FQM then has an option to earn into any base or precious metals discovery by funding exploration and other related expenditure up until a Decision to Mine.

FQM is a significant Canadian-listed group operating eight mines across four continents producing copper, nickel, and gold with an additional three mines under development. With a proven track record in discovering and developing deposits, Boss considers FQM an ideal partner in the exploration and potential development of any base or precious metal discoveries at Honeymoon.

The agreement provides FQM with the right to earn a 51% interest in any base or precious metal discovery at Honeymoon by spending \$6m on exploration and a further 24% interest by sole-funding expenditure up until a Decision to Mine.

The agreement enables Boss to remain fully focused on its core business of uranium exploration, development and production while having exposure at no cost to the significant potential associated with a base and precious metals exploration program led by a global major.

As part of the agreement, FQM will undertake an initial preliminary base and precious metals exploration program at Honeymoon. Expenditure incurred beyond this initial program will then count towards the earn-in.

While Boss Energy's exploration focus has been centred on uranium exploration within the younger palaeovalley cover sediments to add to existing uranium mineral resources, consideration was also given to other mineral commodities that had been actively explored in the region by multiple companies over the past 50 years. A comprehensive desktop review carried out by Boss over the last few years has revealed historic IOCG targets and multiple, high-grade zinc intercepts from various generations of drilling into basement bedrock that have yet to be further investigated. The development of the Company's regional-scale, 3D structural model strongly supports the influence of faults on both palaeochannel development and accumulations of IOCG/ base metal mineralisation.

This agreement is an outstanding opportunity for Boss and our shareholders, to align with a global leader in FQM funding base and precious metals exploration at Honeymoon, giving Boss significant exposure to their success at no cost to us while we focus on our goal of becoming Australia's next uranium producer.

Strong Drilling Results

On 2 February 2022, Boss announced strong drilling results which highlighted potential to increase the production rate and mine life at Honeymoon.

The first phase of exploration drilling, which was part of the Company's Accelerated Discovery Initiative, was conducted in November and December 2021. The program comprised 37 holes for 4,448m across three lightly explored prospects both close to the Honeymoon Restart Area (HRA) and up to ~10km north (Figure 1). These areas include:

- **Brooks Dam Extension:** This target was drilled primarily to test for extensions of significant uranium mineralisation within isolated drill holes on the northern boundary of the HRA.
- **Brooks Dam North:** This target is close to existing mine infrastructure (~900m north of the HRA) and has only been lightly drilled historically. The drilling was designed to follow up previous encouraging drill results and to establish potential continuity of uranium mineralisation.
- **Jason's South:** The northern portion of the JSS target is located ~2km south-east of the Jason's Resource and was drilled to test for extensions of historical drill results in a lightly drilled area.

The southern portion of the JSS target was drilled testing a conceptual target derived from recent geophysical surveys completed over the area.

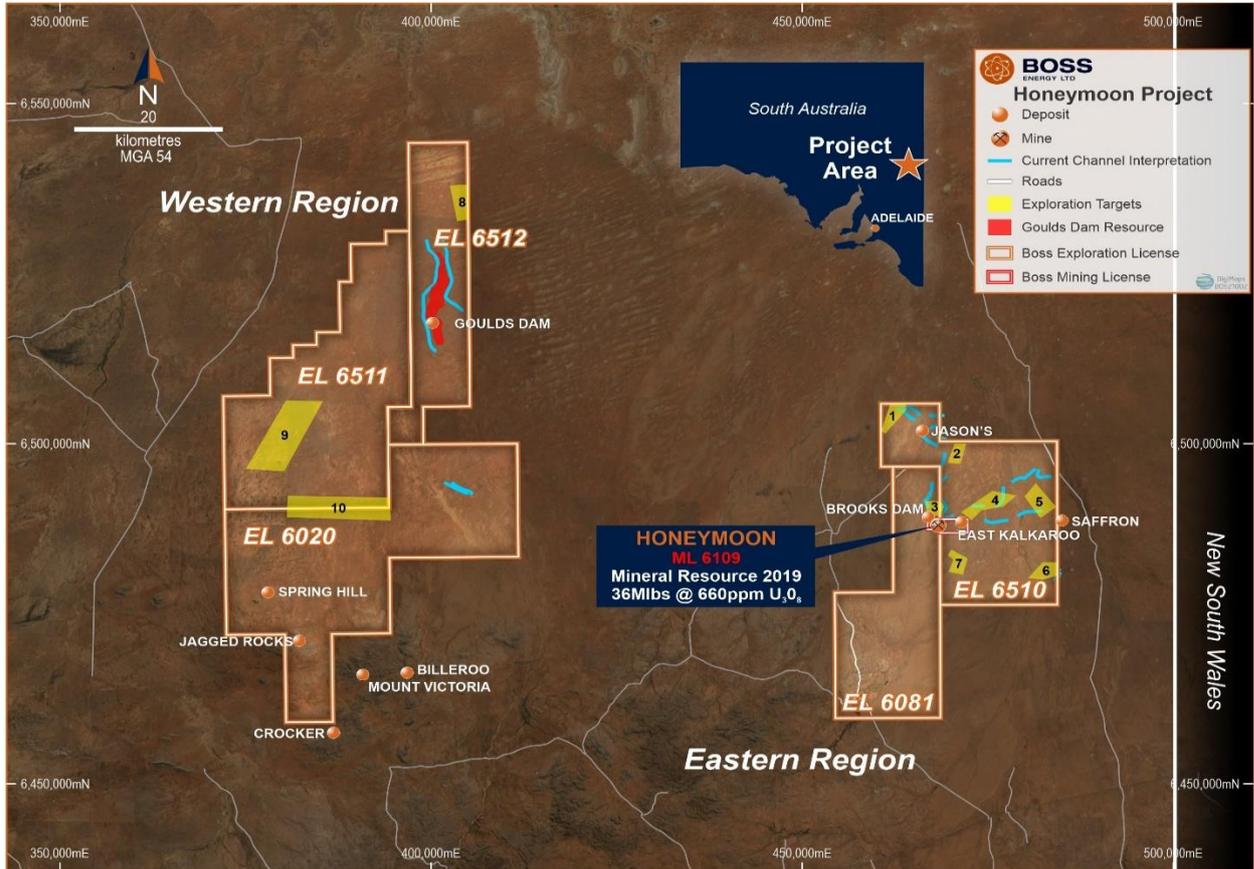


Figure 1: Boss' Eastern Region tenements, South Australia.

Results show significant potential for high-grade mineralisation outside the HRA. Furthermore, there is significant scope for continuing refinement and potential expansion of these target areas.

The drilling intersected mineralisation outside the current JORC Resource, with intersections including (PFN results, ppm pU_3O_8):

- BMR109 (Brooks Dam North): 2.25m @ 774ppm $\text{p U}_3\text{O}_8$ from 82.25m (GT = 1,742 m.ppm)
- BMR113 (Jason's South): 2.00m @ 907ppm $\text{p U}_3\text{O}_8$ from 110.00m (GT = 1,814 m.ppm)
- BMR108 (Brooks Dam North): 1.00m @ 1,727ppm $\text{p U}_3\text{O}_8$ from 99.50m (GT = 1,727 m.ppm)
- BMR092 (Brooks Dam Ext): 1.50m @ 903ppm $\text{p U}_3\text{O}_8$ from 113.25m (GT = 1,355 m.ppm)
- BMR120 (Jason's South): 0.75m @ 1,715ppm $\text{p U}_3\text{O}_8$ from 105.00m (GT = 1,286 m.ppm)

Geological modelling of the first-phase drill results is underway and will be used, in conjunction with existing datasets, to plan further scout and extensional/infill drilling of key targets and deposits during 2022.

A significant cultural heritage clearance survey over high priority areas in the Eastern Regions tenements was also completed in late December 2021. The survey facilitates access to high priority exploration areas and to prepare for infill drilling at the Jason's satellite deposit. This is aimed at

upgrading Inferred Resources to increase the production profile contained in the Enhanced Feasibility Study.

Boss' exploration strategy has already been highly successful, increasing the JORC Resource at Honeymoon from 16.57Mlbs to 71.67Mlbs (~433% increase) since project acquisition in December 2015².

The EFS on Honeymoon provides a base case to fast-track uranium production from Honeymoon's Restart Area utilising only 35.9Mlb of the Project's global mineral resource (JORC 2012) of 71.6Mlb.

Boss Shares Upgraded to OTCQX

On 16 February 2022, Boss advised that its shares had been approved to trade on the OTCQX[®] Best Market in the US.

Boss shares have been trading on the OTCQB[®] Venture Market since August 2021. The criteria for trading on the OTCQX Market is more demanding.

The OTCQX Market is designed for established, investor-focused U.S. and international companies. To qualify for OTCQX, companies must meet high financial standards, follow best practice corporate governance and demonstrate compliance with applicable securities laws. Graduating to the OTCQX Market marks an important milestone for companies, enabling them to demonstrate their qualifications and build visibility among US investors.

Boss Energy Ltd began trading on OTCQX on 16 February 2022 under the symbol "BQSSF." U.S. investors can find current financial disclosure and Real-Time Level 2 quotes for the company on www.otcmarkets.com.

As Boss continues to have its primary listing on the Australian Securities Exchange (ASX), streamlined market standards enables the Company to utilise its ASX reporting and make its information available in the U.S. The Company confirms that admission to the OTCQX is non-dilutive, as no additional capital is required to be raised and no new shares will be issued in conjunction with inclusion on the OTCQX.

Appointment of Human Resources specialist as Non-executive Director

On 16 February 2022, Boss announced that it had appointed highly experienced Human Resources executive Jan Honeyman as a Non-executive Director, effective 21 February 2022.

Ms Honeyman was most recently Director of Human Resources with global miner First Quantum Minerals. During her 16 years in this role, she led the human resource function across the First Quantum group of companies with more than 20,000 employees and managed more than 100 HR professionals across 11 countries.

Ms Honeyman was also Global Director, Talent Management with KBR Energy & Chemicals in Houston USA and was Global Director HR, Infrastructure PL for KBR (a division of Halliburton).

Boss Chairman Peter O'Connor said Ms Honeyman's skills and experience would be invaluable as the Company continued its preparations for the re-start of its Honeymoon uranium project in South Australia.

² Refer to ASX: BOE announcement dated 25 February 2019. Refer Appendix 1 for Honeymoon JORC 2012 Resource.

“The uranium market is tightening and we are putting in place the pieces of the jigsaw to ensure we can move into production as quickly as possible once a final investment decision is taken,” Mr O’Connor said.

“Jan’s experience at the highest level will be critical as we build our team.”

Uranium Market Analysis

The March quarter of 2022 was unquestionably a pivotal period for the uranium market and by extension, for Boss Energy.

A series of major geo-political events sent shockwaves through the global energy industry, forcing the world to address difficult and fundamental questions about how future energy needs would be met.

It was a game-changer by any measure for energy buyers, sellers and consumers alike. As is always the case in such turbulent times, there were clear winners and losers.

Uranium, and therefore Boss, has undoubtedly emerged on the winners’ side thanks to the growing realisation among a broad base of stakeholders that it stands to play a crucial role in ensuring the world has a reliable supply of cost-efficient, carbon-free energy.

The start of the March quarter was marked by unrest in Kazakhstan which, despite being resolved after several weeks, raised questions about political stability, supply chain security and the potential impact on uranium production.

In late February, Russia invaded Ukraine, resulting in severe economic sanctions that have impacted global energy markets, pushing up the price of oil, natural gas and uranium significantly. Russia accounts for more than 35% of global uranium enrichment, for 16.5% of the uranium imported into the U.S. in 2020 and 23% of the enriched uranium needed to power the fleet of U.S. commercial nuclear reactors.

Currently, uranium from Kazakhstan, which accounts for over 40% of world uranium supply, is shipped out of Russian ports. The threat of possible sanctions on Russian nuclear fuel exports, and uncertainty regarding future security of supply, sent prices in the spot market to highs of well over US\$60/lb.

The invasion of Ukraine and the world’s response has highlighted the importance of:

- Energy security and independence. In Europe, there is a move to reduce dependence on Russian gas supply. A direct consequence of this has been the decision in Belgium to keep two nuclear reactors in operation which had been slated for early closure. Growing awareness of these issues has reinforced the need for new reactors and is likely to lead to an increase in uranium demand in the near term as reactor lifetimes are extended.
- Geographic and corporate diversification of nuclear fuel supply. Recent events have highlighted the importance of secure supply sources with minimal geopolitical risk.
- Logistics and supply chains.

At the time of writing, the spot price was ~US\$55/lb, up from US\$42/lb at the end of December 2021. There is significant potential for the spot price to keep rising as it is driven in part by SPUT (Sprott Physical Uranium Trust) purchasing. While SPUT continues to purchase in the spot market, the spot price is likely

to continue rising, albeit with some volatility, given it could also be affected by economic slowdowns, views on sanctions and the duration of the Ukraine invasion.

During the March quarter, the term price rose from US\$45/lb to US\$50/lb. The spot price has continued to trade at a premium to the mid and long-term price indicators and this has had the effect of incentivising utilities to purchase in the mid and term markets. Since the invasion of Ukraine, there has been more activity, on and off market, as utilities try to diversify away from Russian-influenced supply. This has created an opportunity for existing and new producers in politically stable and uranium friendly jurisdictions.

In previous years, price has been more important than security of supply. But recent events have shown the damaging impact of potential supply insecurity. Corporate and geographic diversification is increasing valuable in new contracting.

Recent contracting by utilities has highlighted an interest in incentivising near term supply from projects which have been placed on standby for economic reasons. Honeymoon is ready to go and committed to sustainable long-term operation to ensure stakeholder value. The mine has an experienced management team which has brought uranium mines into operation, is fully licenced and financed and can respond quickly to changing market situations. Moreover, Honeymoon is located in South Australia, which has uranium-friendly policies and established transport routes, leaving it ideally placed to provide reliable supply to global markets.

Appendix 5B disclosures

In line with its obligations under ASX Listing Rule 5.3.5, Boss notes that the only payments to related parties of the Company, as disclosed in the Appendix 5B (quarterly Cashflow Report) for the period ended 31 March 2022, pertain to payments for executive salaries, superannuation and non-executive director fees.

During the quarter ended 31 March 2022, the Company spent approximately \$1.04 million on project and exploration activities relating to its Honeymoon Project. These activities included ongoing technical studies, predominantly completion of the FEED study, and continued exploration activities including geological modelling of the first-phase drilling results to plan further scout and extensional/infill drilling of key targets and deposits. In addition to these activities the Company continued to incur costs relating to the ongoing care and maintenance activities required at Honeymoon. The expenditure represents direct costs associated with these activities as well as capitalised wages which can be directly attributable to Honeymoon.

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

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Appendix One:

Schedule of Mining Tenements

The following information is provided pursuant to Listing Rule 5.3.3 for the quarter ended 31 March 2022.

Tenement Name	Location	Licence Number	Interest
Yarramba	South Australia	EL6510	100%
South Eagle	South Australia	EL6081	100%
Gould's Dam	South Australia	EL6512	100%
Katchiwilleroo	South Australia	EL6511	100%
Ethiudna	South Australia	EL6020	100%
Gould's Dam	South Australia	RL83-85	100%
Honeymoon Mine	South Australia	ML6109	100%

There were no mining tenement acquisitions or divestments during the quarter however during the quarter EL6512, 6511, 6020, 6510 and 6081 were subject to an earn-in agreement with FQM in respect to the base and precious metal rights. Refer ASX release dated 10 February 2022 for further information.

Honeymoon's Mineral Resource (lower cut-off of 250 ppm U₃O₈)

Classification	Tonnage (Million Tonnes)	Average Grade (ppm U ₃ O ₈)	Contained Metal (Mkg, U ₃ O ₈)	Contained Metal (Mlb, U ₃ O ₈)
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
Total	52.4	620	32.5	71.6

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.

Inventory has been valued at approximately A\$95 million based on a U₃O₈ spot price of US\$55/lb and an exchange rate of A\$1:US\$0.72.

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.

The information in this announcement that relates to historical exploration results were reported by the Company in accordance with listing rule 5.7 on 2 February 2022 titled *Strong drilling results highlight potential to increase production rate and mine life*. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

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, which could cause actual results to differ materially from such statements. Boss 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.