1 August 2017



ASX Announcement ASX: BOE

BOSS APPOINTS DUNCAN CRAIB AS MANAGING DIRECTOR

HIGHLIGHTS

- Duncan Craib appointed as Managing Director to lead next stage of development of Honeymoon Uranium Project
- Dr Marat Abzalov to lead Technical Advisory Board with Sashi Davies and Keith Bowes

Boss Resources Limited (ASX: BOE) is pleased to announce that Mr Duncan Craib has been appointed as Managing Director to lead the next stage of development of the Honeymoon Uranium Project, South Australia.

Mr Craib joined the Company in January 2017 as Chief Executive Officer and has overseen a successful capital raise, the completion of a resource upgrade at the Jasons Prospect, the successful completion of a Preliminary Feasibility Study over the Honeymoon Project, and the commissioning of a Field Leach Trial due to commence shortly.

Prior to commencing with Boss Resources, Mr Craib served as Finance Director to Swakop Uranium (Pty) Ltd and was heavily involved in the US\$2.5 billion development and construction of its world class Husab uranium mine in Namibia. Its principal shareholder, China General Nuclear Power Corporation (CGN), is the largest nuclear power operator in China and largest nuclear power constructor world-wide. Husab is currently being commissioned and once in production will be one of the largest mining and processing uranium projects in the world, mining 150 Mt on an annual basis and generating 15 Mt of ore to produce 15 Mlbs of uranium oxide.

Prior to 2012, Mr Craib served in London as CFO to Kalahari Minerals Plc under the Chairmanship of Mr Mark Hohnen. The company's key investment was a 42.74% shareholding in Extract Resources Ltd and its subsidiary Swakop Uranium (Pty) Ltd, which was ultimately the subject of a corporate transaction in 2012 valued at US\$2.2 billion.

Dr Marat Abzalov will step down as a director of Boss Resources to lead a dedicated Technical Advisory Board to further ensure the successful development of the Honeymoon Uranium Project. Recently appointed strategic adviser, Ms Sashi Davies, and technical consultant, Mr Keith Bowes, will also join the Technical Advisory Board thus providing the group a strong skills matrix comprising geological and ISR expertise, marketing and offtake, project management and metallurgical experience.

Dr Abzalov has a PhD in Geology and has recently completed an invited study on ISL styles of mineralisation, including those in Australia. He was previously an exploration manager for Rio Tinto Eurasia, with extensive experience in Kazakhstan uranium projects.

Ms Davies has over 35 years' experience in the international uranium sector with extensive marketing expertise and an in-depth uranium knowledge base, having developed long-lasting relationships with international utilities and off-takers. Ms Davies served the past five years with the CGN Group and from 2014 to June 2017 as General Manager of CGN Global Uranium Ltd. Its principal shareholder, China General Nuclear Power Corporation ("CGN"), is the largest nuclear power operator in China and the largest nuclear power constructor worldwide. Prior to this role Ms Davies was Head of Marketing for Extract Resources Ltd, which was the subject of a CGN corporate transaction in 2012 valued at US\$2.2



billion for its majority shareholding in the world class Husab uranium mine in Namibia, one of the largest mining and processing uranium projects in the world.

Mr Bowes is a process engineer with 20 years' experience in metallurgy, project management and operations. He has worked in Africa, South America and Australia for the major mining houses on projects and plants covering a wide range of commodities and processes. He has been involved in a number of technology developments and has successfully incorporated these into various projects and operating plants.

Pursuant to Listing Rule 3.16.4, the Company confirms there is no change to the remuneration package for Mr Craib from that announced to the market on 9 January 2017.

For further information, contact:

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About the Honeymoon Uranium Project

The Honeymoon Uranium Project ("**Project**") is located in South Australia, approximately 80km northwest from the town of Broken Hill near the SA / NSW border. In addition to holding a mining lease and exploration licences, there exists infrastructure on site to the value of \$170M which incorporates an 880,000 lb per annum solvent extraction plant, currently placed on care and maintenance.

The Project is fully permitted with a 3.3Mlb U₃O₈ per annum export licence.

The Project has a combined JORC 2012 Mineral Resource across three main Project areas of 43.5 Mt at an average grade of 660 ppm eU_3O_8 (for 63.3Mlb eU_3O) above the 250ppm lower cut-off. See original announcement dated 15 March 2017 for further information.

The Project also has a combined Exploration Target of between 32Mt to 78Mt at a grade of between 450ppm and 1400ppm eU_3O_8 with a potential target endowment of between 42Mlb and 100Mlb of contained uranium. This Exploration Target is conceptual in nature and there has been insufficient exploration to estimate a Mineral Resource. It is uncertain if further exploration will result in the estimation of a Mineral Resource. See original announcement dated 8 December 2015 for further information.

The Honeymoon processing plant was placed into care and maintenance over the summer of 2013/14 due to several factors, primary of which was a decline in uranium price. During the 18-month commissioning period the plant successfully produced and exported over 670,000lbs of uranium. To optimise processing performance Boss's assessment of the plant also identified:

- The existing plant is constrained by volume, and production rates (and costs) are driven by the uranium tenor in the feed solution to the plant; and
- The uranium tenor in the feed solution is dependent on wellfield performance and this is where the previous operator encountered their key issue.

Accordingly, Boss has taken the considered approach that:

- A minimum production rate of 2Mlbs/annum is required to be competitive;
- The 2Mlb/annum process plant has been designed with a lower feed tenor of 47mg/l compared the previous average operating tenor of 53mg/l so that the new plant will not be volumetrically constrained;



- A dedicated process for managing gypsum has been included in the process design, and recent results (announced May 2017) demonstrate that the calcium (gypsum) can be successfully managed; and
- Any upside in feed tenors achieved from the improved leaching and/or wellfield performance should result in higher production rates and therefore even lower costs.

An endorsed restart strategy is in place following the successful development work undertaken in the expansion study and Pre-Feasibility Study (announced 31 May 2017). Final technical confirmation will be provided by the current Field Leach Trial to validate assumptions made regarding wellfield production rates and production profiles to attain the planned 2 Mlb U_3O_8 /annum and 3.2 Mlb U_3O_8 /annum considered in the Pre-Feasibility Study (see original announcement dated 31 May 2017). All material assumptions underpinning these production targets as announced on 31 May 2017 continue to apply and have not materially changed. These staged developmental steps are to ensure Honeymoon can operate in the lowest cost quartile of competitive global producers. As underlying uranium prices rise, Honeymoon is arguably being positioned to be Australia's next uranium producer.

Classification	Million	eU3O8	Contained metal	Contained metal
	tonnes	(ppm)	(U₃O ₈ , K t)	(U₃O ₈ , M lb)
Jasons (March 2017)				
Inferred	6.2	790	4.9	10.7
TOTAL	6.2	790	4.9	10.7
Goulds Dam (April 2016)				
Indicated	4.4	650	2.9	6.3
Inferred	17.7	480	8.5	18.7
TOTAL	22.1	510	11.3	25.0
Honeymoon* (January 2016)				
Measured	1.7	1720	3.0	6.5
Indicated	1.5	1270	1.9	4.2
Inferred	12.0	640	7.6	16.8
TOTAL	15.2	820	12.5	27.5
Project Total (All deposits)				
Measured	1.7	1720	3.0	6.5
Indicated	5.9	810	4.8	10.5
Inferred	35.9	586	21.0	46.2
GRAND TOTAL	43.5	660	28.8	63.3
* Quoted resources have been adjusted to exclude previous production of approximately 335t of U_3O_8 .				

Honeymoon Uranium Project Mineral Resource

* Quoted resources have been adjusted to exclude previous production of approximately 335t of U₃O₈ Note: Figures have been rounded

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Competent Person's Statement

The information in this report that relates to the Exploration Targets, Exploration Results and Mineral Resources (as those terms are defined in the JORC Code) was reported by the Company on 8 December 2015, 6 December 2016, 8 December 2016, 14 December 2016 and 15 March 2017 (available at http://bossresources.com.au/announcements/). The Company confirms that it is not aware of any new information or data that materially affects the Exploration Targets, Exploration Results and Mineral Resources, and that all material assumptions and technical parameters underpinning these continue to apply and have not materially changed.