ASX Announcement 26 October 2016

ASX: BOE

PRE-FEASIBILITY STUDY COMMENCES FOR THE HONEYMOON URANIUM PROJECT

HIGHLIGHTS

- Expansion Study results have provided confidence for Boss to proceed to Pre-feasibility Study stage
- Targetting completion in Q2 2017
- GR Engineering Services Limited (ASX: GNG) appointed as lead study consultant
- ANSTO, a world leader in uranium technology, to undertake leaching and uranium recovery test work
- An experienced team appointed to undertake wellfield design and development strategy
- The hybrid ELUEX process selected during the Expansion Study will be further defined as part of PFS
- Additional resource drilling to be undertaken at Jason's Deposit
- Outputs from the PFS will be used for permitting and licensing requirements for expanded production at Honeymoon

Boss Resources Limited (ASX: BOE) ("**Boss**" or the "**Company**") is pleased to announce that the next phase of development of the Honeymoon Project is underway. This Pre-feasibility Study ("**PFS**") is based on the successful outcomes of the recently completed Expansion Study (ASX: 28 September 2016) and will consider opportunities for further optimisation of the process route and associated costs as well as including an in-fill drilling program to further delineate the Jason's Deposit. The information generated in the PFS will form the basis for the license and permit applications for the increased production at Honeymoon and the mining licence for Jason's.

The results of the Expansion Study confirmed Boss's initial assessment that the original plant production rate was too low for a sustainably profitable uranium mine and, as such, a larger processing plant facility based on the use of resin technology could achieve the lower operating costs required for Honeymoon to be highly economic. In addition, the Eluex flowsheet developed during the Expansion Study provided more flexibility and 'robustness' to manage the issues previously experienced by Uranium One. Boss has based the scope of the PFS on further development of the Eluex process.

Work to be completed as part of the PFS includes:

- Metallurgical test work to support the 'go-forward' case
- Resource drilling at the Jason's Deposit
- Upgraded Mineral Resource Estimates
- Engineering to define the pre-works required to start-up the existing plant (Stage 1)

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- Engineering to define the expansion requirements for a 2Mlb/annum operation at Honeymoon (Stage 2)
- Engineering to define the expansion requirements for a ~3.6Mlb/annum operation at Honeymoon inclusive of Gould's Dam (Stage 3)
- Wellfield design and development strategy to support the various stages
- Environmental baseline studies and hydrogeological work to support the permitting and licensing process at Honeymoon and Jason's

Boss has selected the Australian Nuclear Science and Technology Organisation ("ANSTO"), a world leader in uranium and ion exchange technology, to undertake all the metallurgical test work required to further define and optimise the selected flowsheet. This work will include:

- Leaching test work on drill core samples (batch and continuous column leaches)
- Water quality assessments
- Ion exchange test work
- Solvent extraction test work

Boss is in the process of tendering the drilling contract for the resource work at Jason's. This drilling program will include ~75 mud rotary holes, ~4 sonic core holes for generation of test samples and hydrogeological holes and pumping tests for the environmental work and well design.

Boss has appointed GR Engineering Services ("GRES") as the lead study consultant who will have the responsibility to undertake all engineering work and, in conjunction with the Boss team, to deliver the PFS. Their scope will include:

- Review of historical operating data
- Interpretation of metallurgical test work
- Flowsheet development and process design for each stage
- Capital and operating costs for each stage
- Risk assessment
- Reporting

Through a combination of in-house expertise and the use of selected qualified consultants the Company will:

- Upgrade and estimate Mineral Resources for each deposit
- Develop wellfield designs for each deposit with a mineable resource and a production schedule estimated
- Complete baseline environmental studies and assessments

Based on the PFS outcomes, Boss will be able to provide the information required to obtain the necessary regulatory approvals for the expansion and mining lease at Jason's.

The results from the Study are expected by quarter 2 2017, after which the permit and license applications will be submitted to the necessary regulatory bodies.

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Competent Persons' Statements

The information in this document relating to the Mineral Resources is extracted from the announcements entitled 'Substantial Increase And Upgrade In Honeymoon Uranium Resource' dated 20 January 2016 , 'Boss Increases Honeymoon Uranium Project Resource' dated 8 April 2016, 'Maiden Resource of 5.2Mlb for Jason's Deposit' dated 14 June 2016 and is available to view on www.bossresources.com.au. The information relating to the Exploration Target is extracted from the announcement entitled 'Honeymoon Project Exploration Update' and dated 8 December 2015.

The information in this document relating to the Expansion Study is extracted from the announcement entitled 'Positive Expansion Study Results Progress the Honeymoon Project to PFS' dated 28 September 2016 and is available to view on www.bossresources.com.au.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that, in the case of Mineral Resources or Ore Reserves, all the material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. 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 announcements.