ASX Announcement
ASX: BOE

15 November 2017

HISTORICAL HIGH GRADES ACHIEVED AT HONEYMOON

HIGHLIGHTS

- Uranium tenor peaks at historic high of over 370 mg/l U_3O_8
- ~800% higher than current plant design specification
- Higher tenors de-risk the Project and simplify operations with the potential for lower costs
- Tenors achieved place Boss among top ISR industry peers

Boss Resources Limited (ASX: BOE) ("**Boss**" or the "**Company**") is pleased to further announce that the operation of the Field Leach Trial ("**FLT**") is yielding historic high tenors of uranium at the Honeymoon Uranium Project ("**Project**") in South Australia.

Having stabilised the leaching conditions for the wellfields and with the high-grade pattern continuously producing Pregnant Leach Solution ("**PLS**") in the 75-85mg/l U_3O_8 range, the FLT progressed to a role-reversal / push-pull test for one week to determine the maximum possible tenor that can be achieved. Results were immediate with the uranium tenor in the PLS increasing to a peak of 377 mg/l, far surpassing all previously known leaching results at Honeymoon.

Boss Managing Director, Mr Duncan Craib stated "achieving such high tenors from our first wellfield is a fantastic outcome and clearly demonstrates Boss has optimised field operational knowhow and application of improved leaching chemistry and uranium recovery. Having already exceeded expectations with the modified conditions, the achievement of 377 mg/l U_3O_8 sets a new historic record for Honeymoon.

The information generated from this highly successful FLT will benefit future operations through improved design and potential cost savings. The best means of minimizing unit operating costs is to maximise uranium loading onto the IX resin or the SX extractant. This higher loading results in higher uranium tenor in the eluate and more efficient downstream processing."

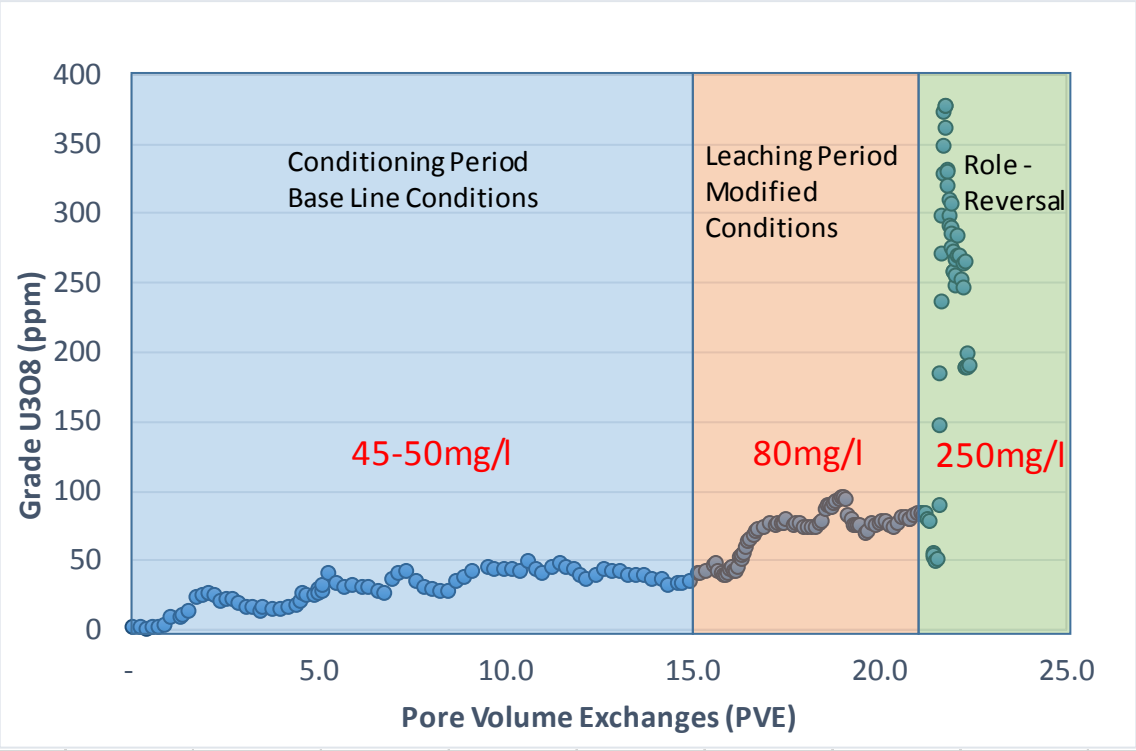
Leaching Progress

As announced previously (ASX: BOE 1 November 2017), increased oxidant additions have been trialled over the period. This increased addition rate has allowed uranium tenors in the range 75-85mg/l (maximum 96mg/l) to be maintained for extended periods (average 79mg/l over two weeks). In order to test the maximum tenor achievable from the patterns a role-reversal strategy was undertaken in which the extractor and injector wells are "switched", thereby enabling the recovery of uranium from a "fully oxidised" zone and hence an indication of maximum possible tenor.

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The planned role-reversal on Wellfield E1 commenced on 7 November 2017 and ran for a period of one week. During the period tenors rose rapidly to peak at 377mg/l before settling in ranges 200-250mg/l.

The figure below shows the uranium tenor achieved since start-up in August 2017, with the colours representing different operating stages and the highlighted numbers denoting the average tenors achieved during each of these stages.



The final campaign of the FLT is now underway and this will test configuring the wellfields in a series arrangement to test the solution stacking concept (recirculation of uranium rich lixiviate) that may prove to be an extremely beneficial operating strategy during commercial operations for boosting the uranium tenors in the plant feed even further.

The IX pilot plant is in the process of being shut down, having successfully met all the required performance data and generated all the required design data that will be used in the Definitive Feasibility Study to more accurately design and cost the ion exchange process.

The FLT program is on schedule and is within budget to be completed by month end, November 2017.

For further information, contact:

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