



ASX Release

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BLACK RANGE MINERALS LIMITED

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Australian Stock Exchange

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Issued Capital:

1,669.6 million shares
50.7 million unlisted options

UPDATE ON COMMERCIALISATION OF ABLATION FOR RECOVERY OF URANIUM MINERALISATION

- Initial tests with un-mineralised solids in the 5tph Ablation Unit have been undertaken
- Following those tests minor design modifications to the slurry mix tank were recently implemented
- All components of the 5tph Ablation Unit required for initial ore trials have been satisfactorily tested in isolation
- All components of the 5tph Unit currently being integrated in advance of first tests with ore from the October stockpile – now scheduled to commence mid-November

Black Range Minerals Limited ("**Black Range**" or the "**Company**") hereby provides an update on its progress with the commercialisation of the proprietary Ablation technology ("**Ablation**"). Black Range holds a 50% interest in the application of Ablation at mineral deposits, globally, through a joint venture with Ablation Technologies LLC (the "**Ablation JV**").

It is anticipated that Ablation will have a very positive effect on the economics of developing not only the Company's 100% controlled 90.9 million pound mineral resource Hansen/Taylor Ranch Uranium Project in the USA, but also many other sandstone-hosted uranium deposits around the world (see below).

Construction and Initial Tests with the 5tph Unit

Further to the Company's ASX release on 17 September 2013 that provided an update on the Ablation JV's progress commercialising Ablation, and in particular the construction of a semi-commercial scale Ablation Unit with nominal capacity of 5tph ("**5tph Unit**"), the Company advises that, following initial hydraulic tests and subsequent slurry density testwork (utilising un-mineralised solids), several minor design modifications to the slurry mix tank were required. These modifications have been implemented and the slurry mix tank is fully functional.

Tests have now been satisfactorily undertaken on all of the individual components, in isolation, that are required to undertake initial trials with ore in the integrated 5tph Unit.

A system to automatically control the feed to the slurry mix tank to maintain ~20% slurry density during testing is expected to be completed within the next week. Concurrently the slurry mix tank is being reintegrated with the ablation modules, transfer pumps and settling tanks in preparation for initial trials. The electronic control and monitoring instrumentation has been completed and is fully functional.

It is now anticipated that the first test with mineralised material in the fully integrated 5tph Unit will commence within the next two weeks. Preliminary results are expected to be available several weeks later.

The Company is extremely pleased that the construction of the 5tph Unit is nearing completion. The recent delays have no bearing on the efficacy of the Ablation process, and are not unusual when commercialising new technologies. Indeed the recent modifications have resulted in improvements in the 5tph Unit and will be beneficial to the Ablation JV going forward.



Assembly and integration of the 5th Unit in advance of initial tests with mineralised material.

Background on Ablation

Ablation was patented by Ablation Technologies LLC ("**ABT**"), a company based in Wyoming, USA. It is a low cost method of separating uranium mineralisation by applying a physical, grain-size separation process, to ore slurries. No chemicals are added in the process, yet very high mineral recoveries can be achieved with considerable mass reduction, using grain-size classification to separate a high-value, high-grade ore product from a coarse-grained barren "clean sand" product. Application of Ablation is expected to have a very positive effect on the development of many uranium deposits, globally, because it is expected to significantly reduce both the capital and operating costs for many projects; while timelines to obtain mine permits may also be reduced.

Extensive testwork has shown that, from amenable sandstone-hosted uranium ore types, typically more than 90% of the uranium mineralisation can be separated into 10-20% of the initial sample mass. Recent development work on a secondary upgrade circuit has seen recoveries in test work exceed 99%.

In April 2012 Black Range released the results of a scoping study that indicated the best way to develop its Hansen/Taylor Ranch Uranium Project is to utilise underground borehole mining and Ablation. The scoping study demonstrated the robust nature of the chosen development scenario, with estimated operating costs of approximately US\$30/lb U₃O₈ and capital costs, based on off-site uranium milling, estimated to be less than US\$80 million.

Shortly thereafter, in light of the substantial benefits of utilising Ablation at the Project, while also recognising the potential to apply this process elsewhere, the Company reached agreement with ABT to jointly commercialise the Ablation process. Black Range and ABT agreed to establish a 50:50 joint venture (the "**Ablation JV**"), with Black Range agreeing to fund commercialisation. The Ablation JV holds the rights to utilise Ablation at all mineral deposits (not just for uranium), globally. Applications of Ablation other than for uranium are yet to be assessed, but it is anticipated that additional opportunities could arise.

Abundant testwork, on samples from numerous sandstone-hosted uranium deposits around the world, has confirmed that Ablation will have widespread applications. The Ablation JV is advancing negotiations with numerous parties that have successfully commissioned first-pass test work on samples from their deposits, whom are now interested in undertaking more extensive field trials. These opportunities provide the Ablation JV potential near-term revenue streams.

Competent Person's Statement

The information in this announcement that relates to Mineral Resources at BLR's Hansen/Taylor Ranch Uranium Project is based on information compiled by Mr Rex Bryan who is a member of the American Institute of Professional Geologists. Mr Rex Bryan compiled this information in his capacity as a Principal Geologist of Tetra Tech. Mr Rex Bryan has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Rex Bryan consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Caution Regarding Forward Looking Statements

This announcement contains forward looking statements which involve a number of risks and uncertainties. These forward looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. The forward looking statements are made as at the date of this announcement and the Company disclaims any intent or obligation to update publicly such forward looking statements, whether as the result of new information, future events or results or otherwise.