



ACN 112712 415

## Oban *In situ* Recovery Trial – Progress Report

### Curnamona Energy

*Curnamona Energy Limited is exploring and developing Tertiary sand-hosted uranium deposits within the uranium rich Curnamona province of South Australia. Its 100% owned Oban deposit contains 2,100 tonnes of eU3O8 within an Inferred Resource of 8.2 million tonnes of uranium mineralisation at an average grade of 260 ppm eU3O8. Approvals are in place to conduct field trials to test operating and design parameters for a full scale in situ recovery operation (>200 tpa).*

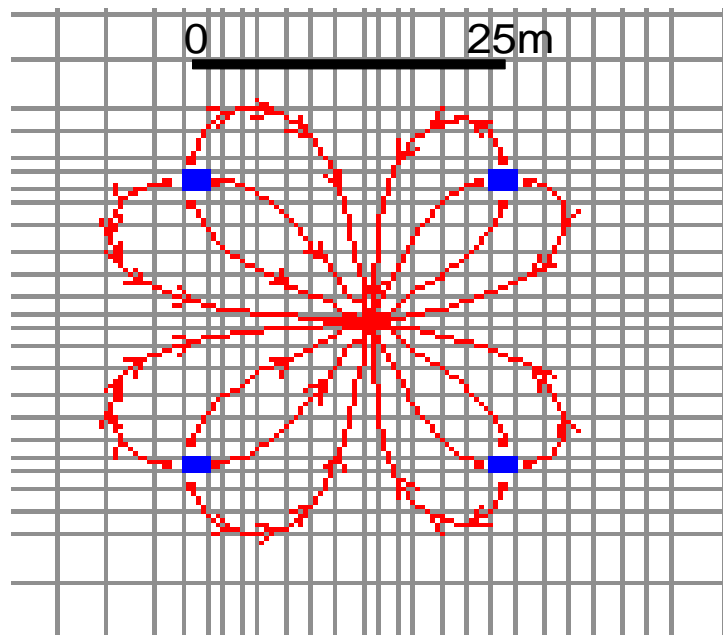
### Issued Capital

66 million ordinary shares  
5.6 million unlisted options

### Contact

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Over the past two months Curnamona Energy Limited's (ASX : CUY, 45% owned by Havilah Resources NL ASX:HAV, referred to as Curnamona Energy or the Company) personnel have been operating the pilot test plant installed on the initial well field at Oban. The well field is a 25m by 25m square pattern of four injector wells with an extractor well located at the centre of the square. A powerful submersible pump draws water from the extractor well and pushes it through the well house manifold where the stream is split and re-injected into the ground via the four injector wells.

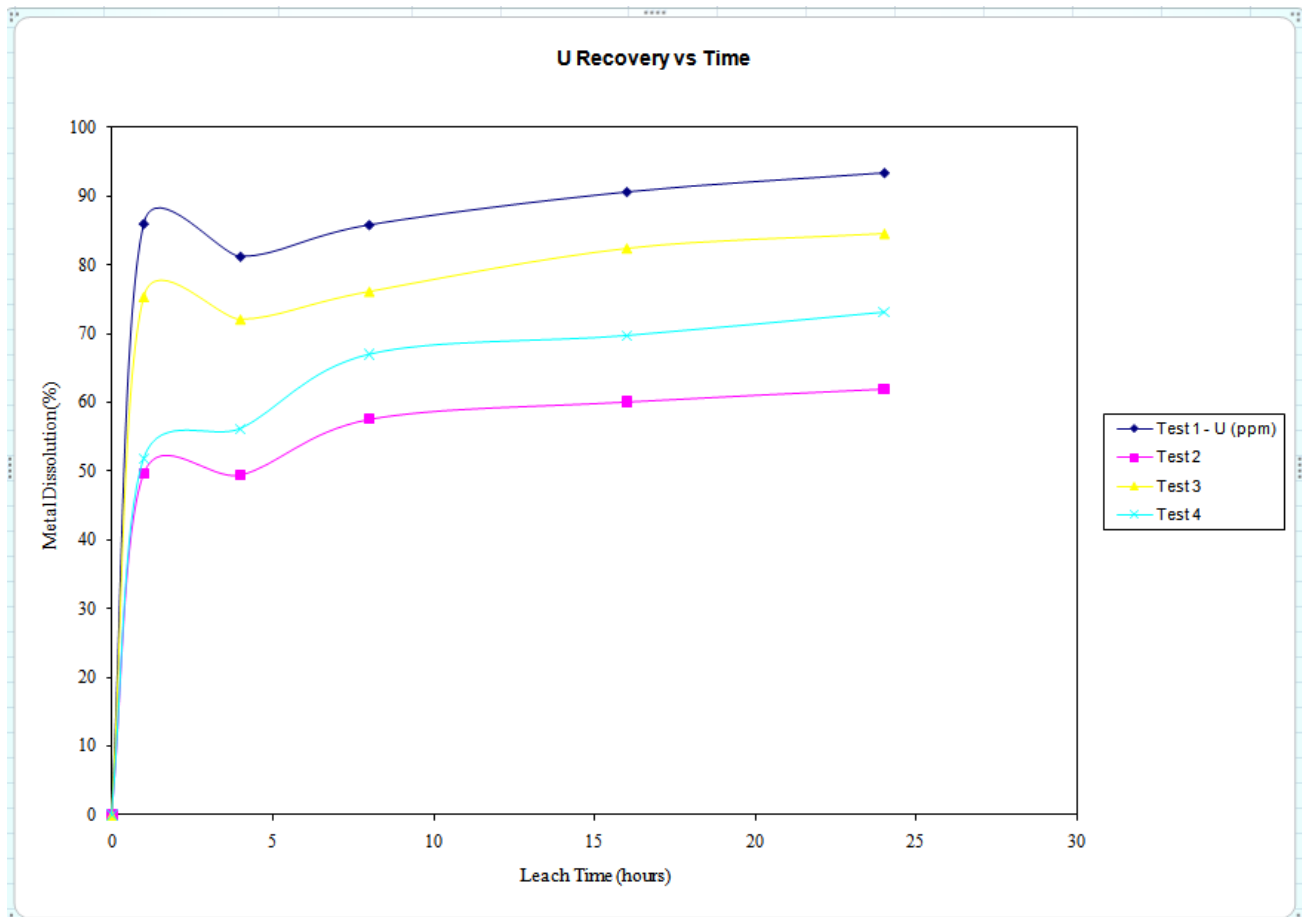


*Well pattern at Oban, comprising a central extraction well surrounded by four injection wells (blue dots) at 25m spacing. Red lines are theoretical water flow paths between the extractor and injection well*

After establishing a satisfactory water circulation flow rate of around 5 Litres per second, across the pattern, a process of slowly adding carefully measured amounts of acid commenced in order to lower the pH to the target level at which the uranium dissolution reaction occurs.

Once the pH was in the target range, after about four weeks, hydrogen peroxide was added to assist the oxidation of iron to enhance the dissolution of the uranium (relying on the oxidising power of ferric iron in the reaction). As is to be expected various technical challenges arose, mainly related to dosing pump failure and delivery and storage of reagents, but overall the well house performed extremely well and according to design.

While this process was happening further bench laboratory tests were undertaken on drill samples to verify earlier leaching results obtained by AMDEL. This has continued to confirm that the ore has a very high reactivity to the weak acid solution and most of the uranium in the ore samples passes into solution in less than two hours, as shown in the accompanying chart. While there are risks in extrapolating this observation to the actual situation underground, it is nevertheless reasonable to expect the uranium recoveries to be ultimately quite high and the lapse time for recovering the bulk of the uranium in each pattern to be relatively short.



*Uranium recovery results from tests by AMDEL Laboratories of Oban uranium mineralized sands at various solution pH levels*

At this stage, with the acidity (pH) and oxidation-reduction potential (Eh) readings now at optimum levels for leaching of the uranium, the plant has yet to recover significant quantities of uranium, contrary to expectations. The cause for this is uncertain, although it has been ascertained that there may be positioning issues with some of the screens in the wells, which may allow solution access to barren sands. It is possible that the solution has formed pathways in an upper barren sand, thereby by-passing the uranium mineralised sands. A smaller pump has recently been installed and the pattern has been restricted to one extractor and one injector well to determine if it is possible to change the flow path. In doing this, a screen blocking pipe has been installed to restrict the extraction column to just the uranium mineralised sand, but so far this has had no effect. One problem may be that once the underground water has found an easy pathway between the wells (in the upper barren sand), then that persists and it is difficult to then re-route the water through the mineralised sand, which may be slightly less permeable.

Pending PIRSA approval, a second well pattern is ready for testing, but before acidifying this pattern it is important to understand the subsurface physical hydrological process that is happening in the initial well pattern. As expected, testing of monitor bores and other bores within 18 metres of the initial test pattern shows no excursion of the leaching solution (lixiviant) from the pattern.

Directors view this as a normal technical challenge, which is to be expected in a new uranium deposit such as Oban. Each *in situ* recovery uranium field has its own particular characteristics which must be understood and adapted to. This is the reason that Curnamona Energy decided to carry out a field leach trial before committing to a large scale plant. The testing process requires careful scientific monitoring and for this reason it has taken, and will continue to take, more time than originally anticipated to carry out various tests in order to determine what is happening in the sub-surface.

Based on the favourable chemical leach testing results mentioned above, directors remain confident of a positive field trial result when the acidified solutions come into contact with the uranium mineralised sands. Once this technical challenge is resolved, it will be a major step forward in the future development strategy for the Oban deposit. In the meantime, the field trials will continue and the market will be updated as new materially significant information becomes available.

For further information visit the Company website [www.curnamona-energy.com.au](http://www.curnamona-energy.com.au) or contact :

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*Solution flow rates in Litres/second as shown in well house control panel for extractor well (at left) and four injector wells (at right).*

#### **Competent Persons Statement**

The information in this report has been prepared by geologists Dr Bob Johnson and Mr Mark Randell who are members of the Australasian Institute of Mining and Metallurgy and Dr Chris Giles who is a member of The Australian Institute of Geoscientists. Drs Johnson and Giles are employed by the Company on consulting contracts and Mr Randell who is employed full time as General Manager. They have sufficient experience which is relevant to the style of mineralization and type of deposit under consideration to qualify as Competent Persons as defined in the JORC Code 2004. Drs Johnson and Giles and Mr Randell consent to the release of the information compiled in this report in the form and context in which it appears.