

ASX Announcement

4 April 2012

Positive Results from Second Metallurgical Testwork Program at Carley Bore Uranium Project, WA

Good recoveries and low acid consumption favourable for project economics

Key Points:

- *9 of 10 samples leached successfully (+80% uranium recovery) at the optimum conditions in second round of metallurgical testwork*
- *Successful bottle roll tests average 90% uranium recovery over 48 hours with most extraction achieved in first 12-24 hours*
- *Low average acid consumption of 8kg/t*
- *QEMSCAN mineralogy confirms the dominant uranium minerals are readily-leachable species including coffinite but with more mineral variability than seen previously*
- *One sample that showed poor leaching was found to contain minor brannerite (a refractory species) while two others containing significant uranium phosphate species showed good leaching*

Energia Minerals Limited (ASX: EMX) is pleased to advise that it has received encouraging results from the second round of metallurgical and mineralogy testwork on sonic core from its 100%-owned **Carley Bore Uranium Deposit**, located within the Nyang Project in the Carnarvon Basin of Western Australia.

The results, which indicate good uranium recoveries and low acid consumption, support the potential for using In Situ Recovery (ISR) processing for the development of the Carley Bore deposit.

This work, which was based on sonic core samples recovered in August 2011 from the Inferred Resource area (*Figure 1*), complements and extends that completed on diamond core in November 2010.

The testwork, which was completed at ALS Ammtec laboratories in Perth under supervision by the experienced consultancy group Tetra Tech Australia Pty Ltd, involved:

- Preparation of five bulk composites from sonic core samples covering a range of uranium concentration and ore types;
- Leach variability tests on one geologically "average" sample were used to determine the optimal acidity (pH: 1.0) and oxidation (eH: 500 millivolts) conditions;
- Bottle roll leach tests on each composite under the chosen optimum conditions;
- Individual bottle roll tests on high-grade samples comprising one "high grade" composite that initially showed poor extraction; and

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- Mineralogical assessment using the QEMSCAN technique on seven samples to indicate the uranium mineralogy, grain size and distribution as well as gangue (host rock) mineralogy.

Executive Director Leigh Bettenay commented:

“Together with test-pumping that was completed late last year, this latest metallurgy and mineralogy testwork provides a good technical basis for the recovery of uranium from the Carley Bore deposit via an in-situ recovery method.

“Uranium leached effectively and quickly from most samples. In addition, acid consumption is a key economic parameter in ISR operations, so it is pleasing that these results confirm our earlier indications that Carley Bore ore has low amounts of acid consuming minerals.

“At Nyang, our immediate focus will be on establishing the potential for satellite deposits elsewhere within our tenements, as further additions to the current resource inventory would significantly enhance project economics. Heritage clearances are scheduled next month to clear the way for this drilling later in the field season.

“In the immediate future, however, we are planning to drill test two significant IOCG (iron oxide copper-gold) targets at our Gawler Craton projects in South Australia. We will provide more information on these programs once a firm drilling schedule is locked in.”



Leigh Bettenay
Executive Director

About Energia Minerals

Energia Minerals is a highly focused exploration and development company with an exciting portfolio of projects in Australia and Italy covering over 5,500km² in 21 granted tenements and 12 under application.

All tenements are 100% owned with no third party royalties.

In the emerging Carnarvon Basin Uranium Province of Western Australia the Company has an Inferred Mineral Resource of **16.9Mt @ 350ppm U₃O₈ for 13 Mlb U₃O₈** (at a 100 ppm U₃O₈ cut-off) **at Carley Bore** in its Nyang Project, located to the south of Paladin's Manyingee (24Mlb) and Cauldron's Bennett Well (4.8Mlb) deposits.

For further information on the company please go to www.energiaminerals.com or send an email to info@energiaminerals.com.

Competent Person Statement:

Information in this release that relates to Exploration Results and the Exploration Target are based on information prepared by Dr Leigh Bettenay who is a Fellow of the Australian Institute of Geoscientists and a full-time employee of Energia Minerals Limited. Dr Bettenay has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken 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". Dr Bettenay consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.

The August 2011 update for the Inferred Mineral Resource at Carley Bore is based on information compiled by Mr Alex Aaltonen who is employed by Energia Minerals Limited and Mr Neil Inwood who was employed by Coffey Mining Limited at the time of the resource estimate and public release of results. Mr Inwood visited the site from 23-25 April 2010. Alex Aaltonen is the Competent Person responsible for the drilling assay database, QA/QC validation and density measurements. Neil Inwood is the Competent Person responsible for the resource estimation and classification. Mr Inwood is a Fellow of the AusIMM and Mr Aaltonen is a Member of AusIMM. Both Mr Aaltonen and Mr Inwood have sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken to qualify as Competent Persons as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". As Mr Inwood is now no longer employed by Coffey Mining, Coffey Mining has reviewed this information release and consent to the inclusion, form and context of the relevant information herein as derived from the original resource reports for which Mr Inwood's consent has previously been given. Mr Aaltonen also consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.

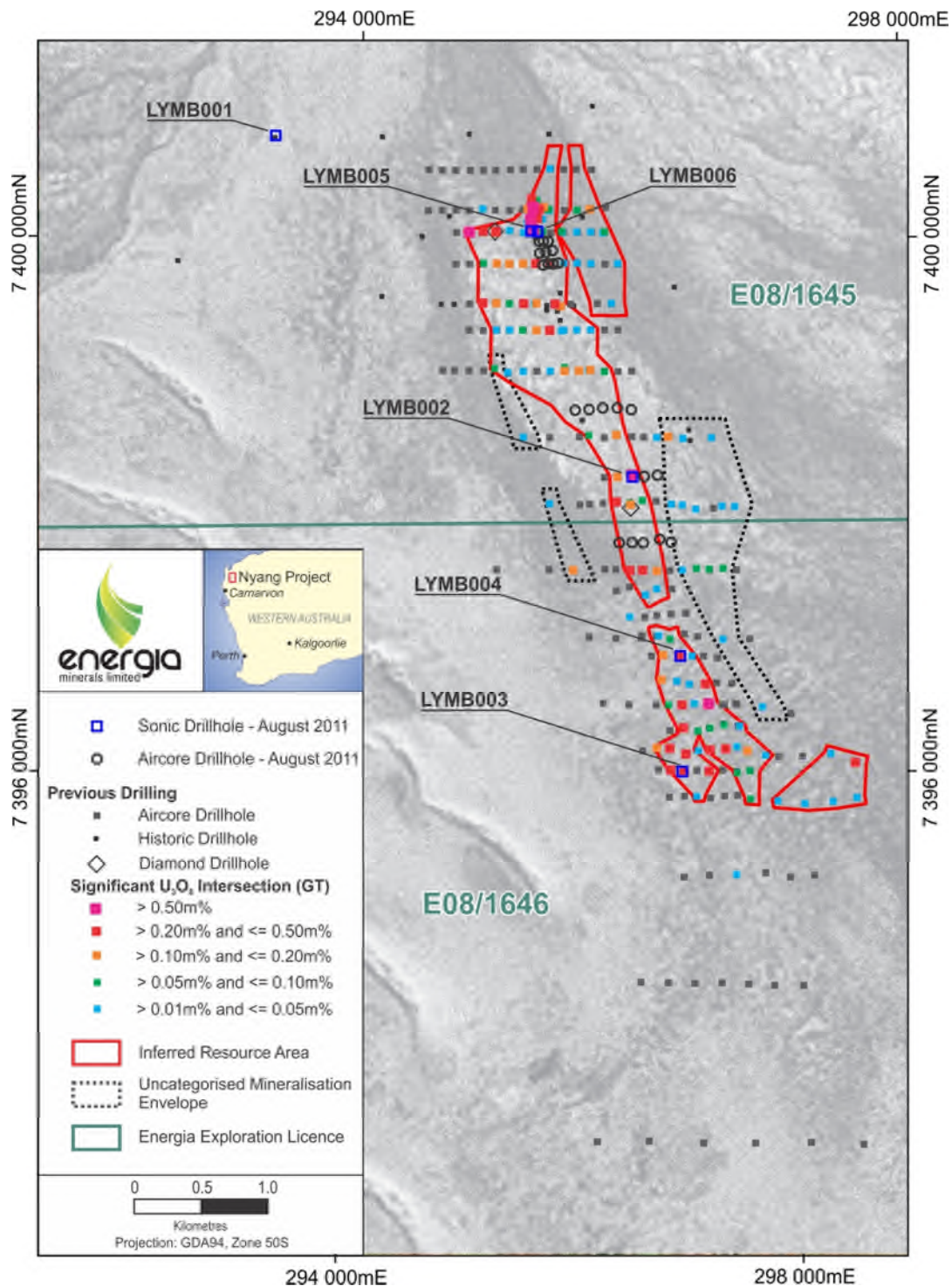


Figure 1 - Carley Bore Prospect, Nyang Project, showing outline of August 2011 Inferred Resource estimate, significant uranium intersections as GT in metre%, and location of sonic holes drilled in August 2011 to provide metallurgical samples.