

ACTIVITIES REPORT

THREE MONTHS TO 30 SEPTEMBER 2009

HIGHLIGHTS

Development and Exploration

- Metallurgical study commenced on MRD samples
- Contracts let or in negotiation for aircore and diamond drilling programmes
- Continuing environmental base line data collection and weather monitoring

Corporate

- Completion of placement and share purchase plan to raise \$12.16 million.
- Cash of \$12.17 million at quarter end



Chris Davis
Managing Director

30 October 2009

NEAR TERM OBJECTIVES

- 1 Complete major infill and extension air core and diamond drilling programmes at Ambassador. This drilling is intended to increase the size and improve the resource classification of the high grade areas of the Ambassador deposit and provide grade information on the associated base metal mineralisation. It will also test the underlying strata for additional lignite and sandstone-hosted uranium, and other mineralisation.
- 2 Complete detailed metallurgical investigation and testwork to optimise recovery of uranium and other commodities from lignite and sandstone mineralisation that can be recovered by open pit mining.
- 3 Assess the potential to recover sandstone uranium mineralisation by Insitu Recovery (ISR)
- 4 Progress permitting and baseline studies, with emphasis on weather monitoring, flora, fauna and heritage studies
- 5 Complete a Scoping Study that will focus on Ambassador, with a target mine life of a minimum of seven years at a production rate of 1,000 tonnes of U₃O₈ per year. Emperor and Shogun will be included.

LONGER TERM OBJECTIVES

- 1 Continue drill programmes at Emperor and Shogun to achieve expansion of these resources
- 2 Generate a longer development pipeline of uranium, base metal, gold and energy projects through follow-up of the numerous historic intersections within the project area, and via regional exploration
- 3 Uranium production targeted for 2013



DEVELOPMENT AND EXPLORATION

Activity during the Quarter included:

- Commencement of new metallurgical studies,
- Continuation of botanical surveys,
- Contract let for production of high-resolution Digital Terrain Model (DTM),
- Contracts let for air core (AC) drilling programme and gamma probing,
- Contract for diamond drilling being finalised,
- Fauna survey programme designed and approval permit lodged,

Safety and Environment

There was no injury-related lost time during the Quarter.

Botanical surveys were continued within the Ambassador and local surrounding areas during the quarter. The few past studies in the Narnoo area, and elsewhere in the south western part of the Great Victoria Desert by other groups have shown that areas of yellow sand terrain that are common in this region host habitats in which a small mouse like marsupial (The Sandhill Dunnart) and a low dune shrub – identified as the *Conospernum toddii* occur. Both are covered by State and Federal Conservation legislation.

The surveys conducted during the quarter found that *C.toddii* is present at several locations within the proposed work area, typically along the central-eastern margin. However, the presence of the plants found will have no substantial effect on the over-all scope of the current drilling programmes.

A Fauna Survey is planned for the Ambassador Area during the next quarter. This study, is intended to be completed during springtime in accordance with Government Guidelines, and will augment a study completed in 1984 by PNC.

The three weather stations installed during the June quarter have operated continuously for 3 months. Planning is now in progress to have calibration certificates issued for each station.

People

The Company has commenced recruiting full-time and contract personnel to enable completion of the proposed drilling programmes during the remainder of 2009, and other exploration and development activities thereafter. The accommodation capacity of the field camp has been increased by six rooms (to 14 rooms), and facilities are being installed to allow drilling crews to be accommodated on site in caravans.

MRD and Narnoo Projects

Commencement of Metallurgical Studies.

Samples of lignite and sandstone mineralisation acquired via the diamond drilling programme completed last year were sent to the ANSTO laboratory in Sydney for the commencement of investigative metallurgical studies. This work will determine the optimum leach conditions for the recovery of uranium and other commodities, and act as a pre-cursor to the more detailed studies to be commenced during the next quarter on bulk samples acquired by large diameter diamond, and air core drilling. The results of the first study are expected to be received during December.

The bulk samples of lignite and sandstone mineralisation will be subject to both acid leach tests, and flotation tests to assess the recovery of base-metal sulphides. Leach tests will also be completed on samples of combusted lignite mineralisation, for comparison with tests previously completed by PNC. All metallurgical investigation and testing will be undertaken at either ANSTO or Ammtec, with results scheduled to be received in the first quarter of 2010.

Digital Terrain Model

A contract was let to AAMHatch for the production of a high-resolution DTM of an area of about 270 km², covering the MRD and the areas between and

around the MRD where additional uranium mineralisation is either known, or predicted to be present. The LiDAR radar survey was flown in early October. The DTM to be produced from the survey is predicted to have elevation data accurate to 10 cm. These elevation data will initially be used to determine collar heights for all existing and future drillholes. The data will also be used to level historic gravity surveys in the Ambassador and Shogun areas, such that the data from these older surveys can be integrated with more recent gravity data acquired by EMA.

The LiDAR DTM will also be used to level an historic, lower quality DTM produced from aerial photography, covering all of the Narnoo Project area.

Contracts for Drilling and Gamma Probing

A contract was awarded to Bostech Drilling for drilling in the order of 400 air core holes for approximately 32,000 metres. The programme consists of holes to be drilled on a 200 m by 80 m grid in main mineralisation areas, and 200 m by 160 m grid around margins and extension areas. All holes will be drilled to basement and sampled in detail. Programme of Works (POWs) have been approved by the State Department of Mines and Petroleum for all proposed drillholes. Samples collected will be used for chemical assay to determine base-metal and gold grades, and give guidance to the distribution of uranium, and other elements in organic phases. Equivalent uranium grades (eU) will be determined from gamma data acquired from probing the holes through the drill-pipe, or in open holes.

A contract was awarded to 3D Exploration Pty Ltd to complete the gamma probing of drillholes using a 4,000 channel spectral tool. 3D Exploration will also determine Casing and Disequilibrium Factors (if present), and calculate equivalent uranium and equivalent thorium grades. Back-up probing will be provided by an Austal total gamma tool owned by the Company. Provisional equivalent uranium grades (application of casing factor, but not disequilibrium factor) will be released as these data are received from 3D Exploration.

Negotiations were advanced with a prime contractor for the completion of the proposed

diamond drilling programme. The programme will include up to 10 large diameter cores (200 mm) of lignite and sandstone mineralisation to acquire sample for metallurgical studies, and about 30 PQ or HQ holes to provide samples of lignite and sandstone mineralisation for assay of all elements, and disequilibrium and geotechnical studies. The programme commenced in October.

Minigwal and Gunbarrel Projects

The Company is still awaiting approval of POWs prior to commencing heritage and drilling programmes on both projects.

Following review of all geological and other data acquired by the Company over both projects, Voluntary Partial Surrenders were made of parts of five Exploration Licences considered to have little or no prospectivity for the styles of uranium mineralisation being sought.

CORPORATE

Cash and Funding

On 15 July 2009 the Company announced a capital raising via a Placement to institutional and sophisticated investors and a Share Purchase Plan (SPP) to eligible shareholders.

The Company completed the Placement in two tranches, the first on 22 July 2009 and the second on 7 September 2009, raising gross proceeds of \$9.16 million. On 17 September 2009, the Company completed the SPP raising an additional \$3.0 million that provided eligible shareholders with the opportunity to subscribe for shares and options in the Company on the same terms offered under the Placement. The issue price of all shares was \$0.21 each, representing a 21% discount to the five day volume weighted average price prior to the Company entering a trading halt on 13 July 2009. In addition, for each share subscribed, the Company granted one free option to acquire one fully paid share in the Company at an exercise price of \$0.33 per share with an expiry date of 31 July 2011.

Cash at 30 September 2009 totalled \$12.17 million.

CORPORATE INFORMATION



Directors:

Phillip Golding, Non-executive Chairman

Chris Davis, Managing Director

Mike Fewster, Executive Director

Stephen Penrose, Non-executive Director

Stock Exchange listing:

Australian Securities Exchange

Ticker Symbols:

Ordinary shares = EMA

Listed options = EMAO

Shareholder enquiries:

Security Transfer Registrars

770 Canning Highway

Applecross Western Australia 6153

Telephone +61 8 9315 2333

Facsimile +61 8 9315 2233

Registered office:

Ground Floor

25 Richardson Street

West Perth, Western Australia, 6005

Telephone +61 8 9389 2700

Facsimile +61 8 9389 2722

Website:

www.eama.com.au

FOR FURTHER INFORMATION, PLEASE CONTACT:

Chris Davis, Managing Director

Perth, Australia

Telephone: +61 8 9389 2700 Email: info@eama.com.au

ABOUT ENERGY AND MINERALS AUSTRALIA LIMITED

Energy and Minerals Australia (ASX: EMA) is a Perth-based resource development company. EMA's primary focus is the development of the Mulga Rock Deposits, located about 770 kilometres east-northeast of Perth in Western Australia, and about 240 kilometres northeast of the regional city of Kalgoorlie-Boulder. Mulga Rock comprises one of Western Australia's largest undeveloped uranium deposits with good access to all required infrastructure for development.

The Mulga Rock Deposits are contained within the Narnoo Project that includes about 986 km² of granted exploration tenements. The EMA land package also includes the nearby Gunbarrel and Minigwal project areas — which combined cover more than 773km² of granted tenements over prospective areas to provide a large and consolidated landholding in the highly prospective Gunbarrel Basin and eastern Goldfields regions. The Company has an experienced board and management team, which includes strong geological experience in these regions.

The information in this announcement that relates to Exploration Results is based on information compiled by Michael Fewster, who is a Member of the Australian Institute of Geoscientists. Mr Fewster is an executive director of the Company. Mr Fewster has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being undertaken to qualify as a Competent Person as defined in the 2004 Edition of the JORC 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Fewster consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.

Figure 1: Project locations within Western Australia



Additional information has been lodged on the ASX online lodgement system and the Company website located at www.asx.com.au and www.eama.com.au respectively.