

Alligator commences pre-drilling geophysics at Samphire Uranium Project, South Australia – 1st February 2021

Alligator Energy (ASX: AGE, 'Alligator' or 'the Company') has today commenced its first planned exploration work on the Samphire Uranium Project near Whyalla, South Australia. Alligator completed the acquisition of Samphire in October 2020.

Historic geophysical data acquired by Samphire Uranium has been interpreted to delineate paleochannels which host the Blackbush deposit and generate a coarse resolution map of critical mineralisation-controlling basement structural architecture.

The Company's geologists are currently undertaking a trial high resolution non-invasive ground magnetics survey to determine the techniques' effectiveness in further refining mineralisation controls allowing targeted investigations into high-grade uranium relating to basement structures.

Additionally, building upon a trial passive seismic survey completed by Samphire Uranium in 2019 which successfully mapped channel architecture and underlying basement structures, the benefits of a further passive seismic program is being assessed by Alligator to assist with targeting of additional high-grade zones within the known deposit areas.

The combined geophysics investigations will assist to refine the planned drilling locations for the exploration Program for Environment Protection and Rehabilitation (PEPR) which the company is preparing for approval by the SA Department for Energy and Mining (DEM). This will enable drilling planning and commitments to get underway.

Part of the future work being planned will be sonic core drilling to obtain fresh core samples of mineralisation for updated uranium extraction and process recovery test work through ANSTO. This follows the findings of the desktop study undertaken by Inception Consulting Engineers and announced to the market on 16 December 2020. Refer to the Company's Quarterly Report (released 28 January 2021) for further detail.

Greg Hall, Alligator CEO said *"We are pleased to be commencing Alligator's exploration work at Samphire with this non-invasive geophysics technique, which will enhance our knowledge of the basement structures that potentially delineate higher grade zones, and allow us to plan our near term drilling accordingly."*

The Samphire project represents an exciting opportunity for Alligator within an improving uranium market for a timely potential future development."

Approved for release by the Alligator Energy CEO, Greg Hall

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ASX Code: AGE

Number of Shares:
2,354 M Ordinary Shares
125.8 Listed options
28.8 M Unlisted Options
60M Perf Shares

Board of Directors:

Mr Paul Dickson
(Non Exec. Chairman)

Mr Peter McIntyre (Non
Exec. Director)

Mr Andrew Vigar
(Non Exec. Director)

Mr Greg Hall
(CEO & Exec. Director)

FOR FURTHER INFORMATION, PLEASE CONTACT

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Company Secretary
Alligator Energy Ltd
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Competent Person's Statements

Information in this report is based on current and historic Exploration Results compiled by Mr Andrew Peter Moorhouse who is a member of the Australasian Institute of Geoscientists. Mr Moorhouse is the Exploration Manager for Alligator Energy Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Moorhouse consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.

The ICE technical report on "Samphire Project – Processing Review and Opportunities" undertaken as part of this Desktop Study was undertaken by Mr Jon Weir and Mr James Davidson. Mr James Davidson is a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM) and is General Manager / Consulting Metallurgist with Inception Consulting Engineers. Mr Davidson has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration in the areas of in-situ recovery, wellfield design and operations, uranium leachate processing and extraction, and uranium production, to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Davidson consents to the inclusion in this release of the matters based on his Desktop Study in the form and context in which it appears.

About Alligator Energy

Alligator Energy Ltd (Alligator or the Company) is an Australian, ASX-listed, exploration company focused on uranium and energy related minerals, principally cobalt-nickel.

Alligator's Directors have significant experience in the exploration, development and operations of both uranium and nickel projects (both laterites and sulphides)

Uranium

The Company is primarily exploring for uranium in West Arnhem, utilising modern exploration techniques, combined with the best geological knowledge acquired by Alligator and consultant geologists, in search for uranium deposits of similar mineralisation style and tenure to that of the world class Alligator Rivers Uranium deposits of Jabiluka and Ranger, concealed beneath the covering sandstone. The company's Tin Camp Creek and Beatrice tenements form the exploration focus but the Company also assesses other opportunities as they arise.

The Company is researching and developing novel uranium decay isotope geochemical techniques and has modified and is applying airborne geophysical techniques with the objective of detecting such concealed targets. The previously drilled Caramal and Beatrice deposits represent eroded remnants of once much larger deposits.

The Company also has in excess of 1000km² of Exploration Licence applications awaiting grant within the Alligator Rivers Uranium Province.

Alligator also has exploration ground in South Australia (SA) having entered into a Share Purchase Agreement to obtain up to 100% of the BLU project. This project represents an exploration opportunity for ISR shallow sandstone hosted style deposits in the Cooper Basin of SA, similar to those of the Beverley, Four Mile and Honeymoon resources of the Frome basin in SA.

In early October 2020, Alligator acquired the Samphire Project within the shallow Kanaka Beds of the Pirie Basin at Samphire, a location approximately 20 kilometres southwest of Whyalla within the South Australian Gawler Craton. Over several years two uranium deposits were identified, Blackbush and Plumbush, with multiple other uranium targets established.

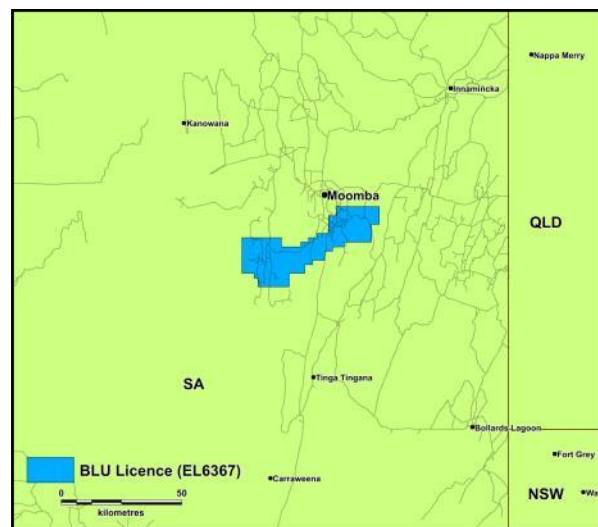
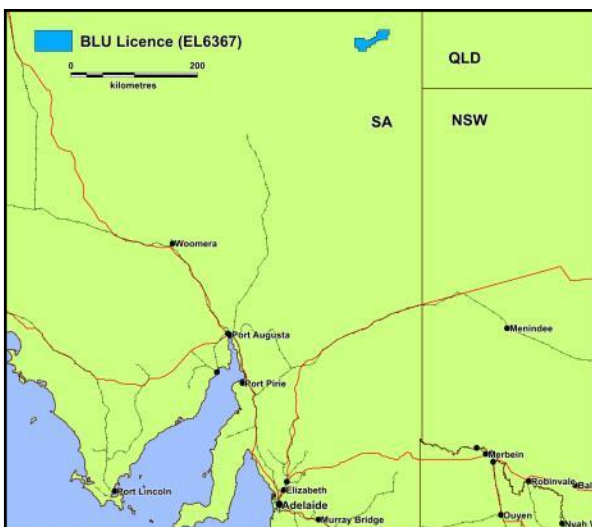
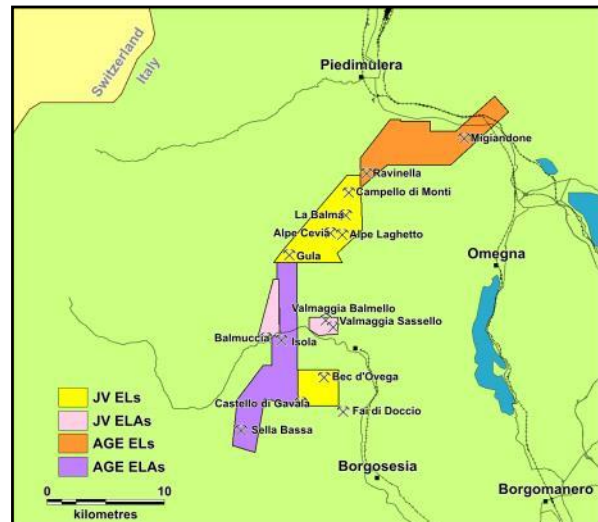
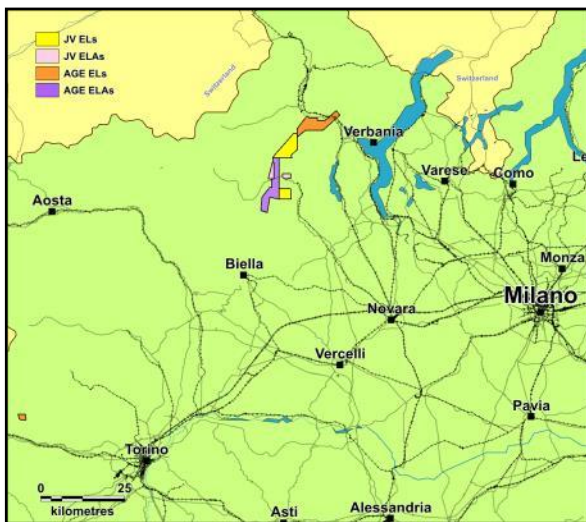
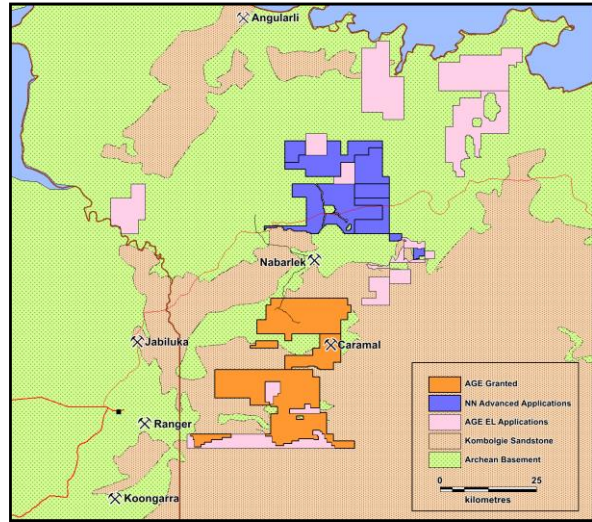
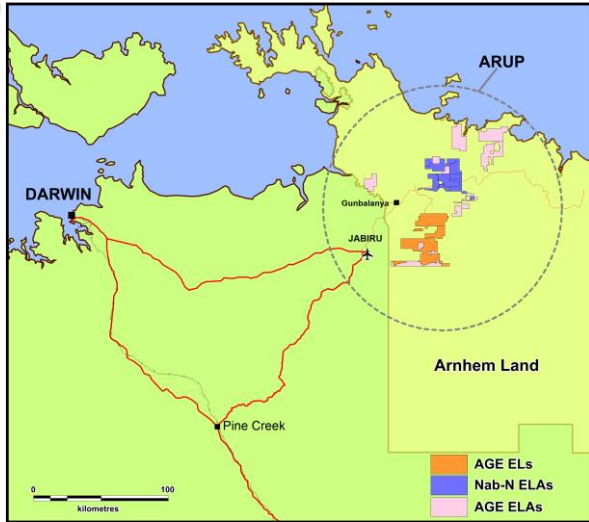
Cobalt- Nickel

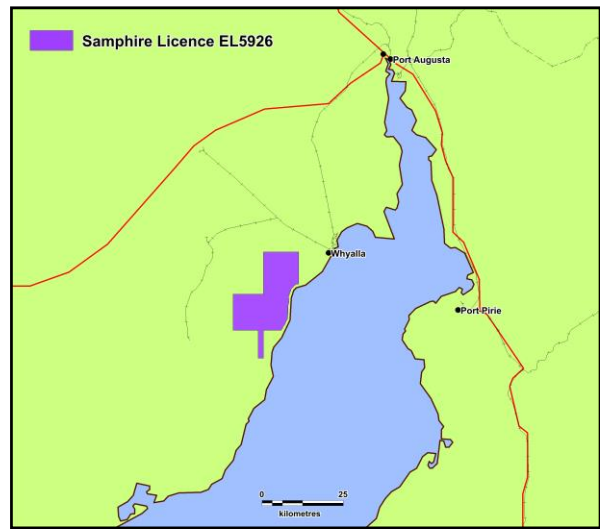
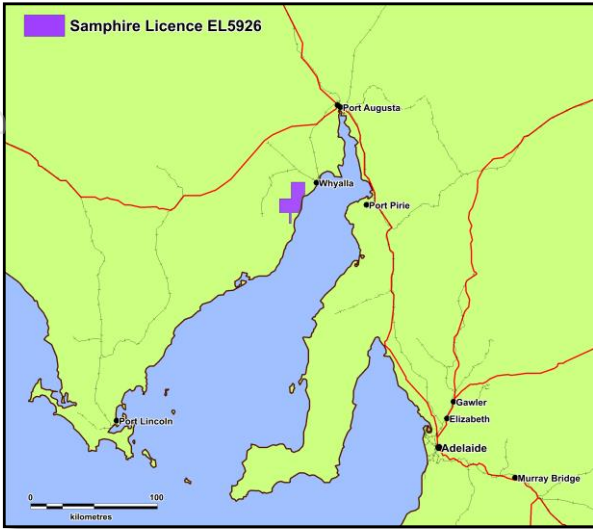
Alligator signed a binding Heads of Agreement with Chris Reindler and Partners (CRP) in January 2018 to earn up to 70% interest in the Piedmont sulphide cobalt – nickel project in Northern Italy.

The project covers four titles containing ultramafic-hosted cobalt-nickel sulphide deposits that were mined between the 1860's and the end of World War II. Sulphides in pipe-like intrusive bodies and massive sulphide accumulations at the base of large, layered ultramafic intrusions were mined. The cobalt to nickel ratio was high in these deposits. Airborne surveys obtained by CRP have defined a number of conductors potentially indicative of massive sulphides as well as a number of magnetic features which may represent the responses from intrusive bodies hosting disseminated

sulphides. These represent very attractive targets in an area with clear cobalt-nickel pedigree untouched by modern exploration techniques.

NT Australia – ARUP U:
 Northwest Italy – Piedmont Ni-Co:
 SA Australia – Big Lake U:





Project Location Diagrams

For personal use only
SA Australia – Samphire U: