

## Alligator completes 47 Mlb Samphire Uranium acquisition – Commences Planning Studies – 8 October 2020

### Key Highlights

- Alligator Energy is pleased to confirm completion of the acquisition of the 47 Mlb\* Samphire Uranium project, south of Whyalla in South Australia from Samphire Uranium Ltd (Samphire). (\*Refer to 11 June 2020 ASX announcement)
- 679,561,608 AGE fully paid ordinary shares were issued to Samphire, with an immediate in-specie distribution of shares to Samphire shareholders
- AGE shareholding notices will be mailed to Samphire shareholders on or about 9 October 2020.
- Following successful EGM meeting outcomes last week, Alligator has initiated a package of work on the Samphire Project. The following initial desk top planning studies are now underway:
  - Community and environment status and review
  - Resource expansion and exploration potential
  - Open pit mining potential
  - Processing enhancement options for ISR and potential open pit
- Initial results from these studies are scheduled to be completed by the end of October. This will enable planning for any required further resource and exploration drilling, additional sampling and processing testwork, along with data gathering to allow an updated Scoping Study to be commenced
- In addition, Alligator will be investigating the future potential for production and sale (or toll treatment) of an intermediate uranium product to one of the three existing uranium plants within South Australia, thereby reducing Samphire future plant size and capital costs, and potentially bringing the project faster to market and cashflow in the right uranium market environment.

Alligator Energy Ltd

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ASX Code: AGE

Number of Shares:  
2,123.3 M Ordinary  
Shares  
148 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)

Alligator Energy (ASX: AGE, 'Alligator' or 'the Company') is pleased to announce it has completed the acquisition of the Samphire Uranium Project near Whyalla in South Australia. The consideration of 679,561,608 fully paid ordinary AGE shares has been in-specie distributed to eligible Samphire shareholders.

**Greg Hall, Alligator CEO** said "We are extremely pleased to complete this transaction and commence initial planning studies work on the Samphire Uranium project. The Samphire project represents an exciting opportunity within an improving uranium market to add a development project to the Alligator portfolio.

*I thank our existing shareholders for their support in concluding this value accretive acquisition, and welcome our new shareholders to Alligator Energy. Our team of staff and specialised consultants are now working on the immediate value propositions within this Project."*

## Sapphire Acquisition completion

In accordance with the terms of the Share Purchase Agreement signed with Sapphire on 31 July 2020, Alligator has acquired all of the shares in S Uranium Pty Ltd the registered holder of EL 5926. S Uranium Pty Ltd also has cash balances (after the impending sale of a vehicle) of \$680k.

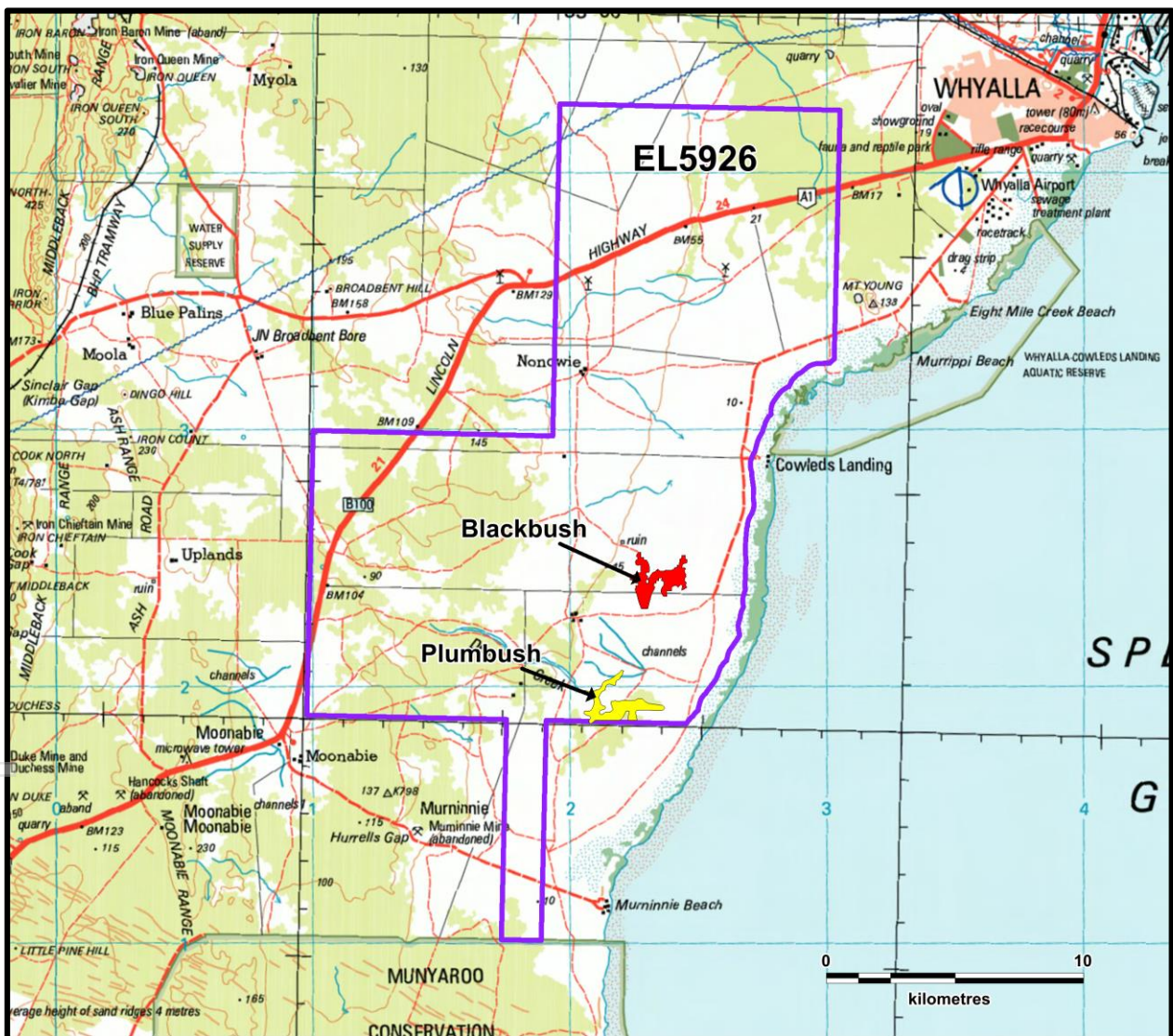


Figure 1. Location of Samphire Project in SA

## **Samphire Project work plan**

Alligator staff and our consultants are now undertaking the initial planning studies to determine best value add propositions for the Samphire project for immediate future work. The scope of work for this includes the following:

### **1. Community and Environment**

- a) Complete a review of historical baseline environmental work and investigate updated requirements and additional work required
- b) Re-Initiate community and indigenous group engagement

### **2. Resource expansion and exploration potential**

- a) Review and plan required work program to assess resource expansion potential at Blackbush – including possibilities of further higher-grade zones adjacent to the existing delineated resource.
- b) Review and estimate the work required to bring the Plumbush deposit up to JORC 2012 standard, and assess any immediate exploration upside potential to the resource.
- c) Assess, rank and budget further work to progress additional exploration opportunities that exist within the tenement package

### **3. Open pit potential**

- b) Review existing historical open pit design on Blackbush developed by SUL and undertake a desk top hydrogeological study using existing extensive hydrogeological data from ISR work.
- c) Complete updated open pit designs for Blackbush deposit to a Scoping design level

### **4. Processing update and options**

- a) Review existing historical processing flowsheet and investigate improvement opportunities using latest continuous ion exchange (IX) technologies and resins available – for both ISR and open pit potential
- b) Review the flow sheets, logistics, approvals and initial cost estimates at a high level for both ISR and open pit potential for three scenarios, including:
  - i. Full process plant taking uranium through to final drummed product, marketing and exporting
  - ii. Process plant through to concentrated uranium solution – and sale (or toll treatment) and transport of intermediate product to others
  - iii. Process plant through to loaded resin, and sale (or toll treatment) and transport of intermediate product to others

Alligator believes there is exploration potential to improve the known resource, including possible zones of higher grade mineralization around the Blackbush deposit. Critical to exploring for these higher grade zones is to thoroughly understand the existing mineralisation controls and interaction between fertile basement feeder structures and the overlying sediment sequence. A substantial amount of geophysical data exists over the tenement, and this will be re-evaluated and reprocessed to assist with understanding these processes, and assist with the planning for both resource upgrade, and further distal exploration opportunities.

An interesting aspect and opportunity of the Samphire project is the potential for isolated resources to be mined by either ISR or open pit methods, and an intermediate concentrated uranium solution to be either sold or toll treated at one of the existing uranium plants within South Australia. This “hub and spoke” type uranium mining field system has been commonly used at ISR regions in Wyoming, Texas and Kazakhstan, and is an efficient way to develop small, isolated uranium deposits. Existing technology for the transport of chemicals (including uranium solutions) in triple skin safety containers is already established but would



require investigation of costs and approval processes. It has already been used in South Australia within an existing uranium site, and for the transportation of uranium solutions for testing and analysis.

This system has the potential to save substantial back end capital costs for a future project and could bring the project faster to market and cashflow. This will be investigated along with a potential full processing plant through to drummed uranium oxide.

Upon completion of the above initial work Alligator will be in a position to plan, obtain approval and undertake initial on-ground exploration, along with additional sampling work for any updated processing testwork that may be required. We will make further announcements of these results and outcomes in the coming weeks and months.



**Figure 2. View across the Blackbush deposit and saltbush plain.**

Approved for release by the Board of Alligator Energy Ltd

**FOR FURTHER INFORMATION, PLEASE CONTACT**

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## Competent Person's Statement

### Uranium

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.

## 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 1000km<sup>2</sup> 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.

Alligator has now completed the acquisition of the Samphire Uranium project from the unlisted company Samphire Uranium Limited. The Samphire Uranium deposits lie 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.

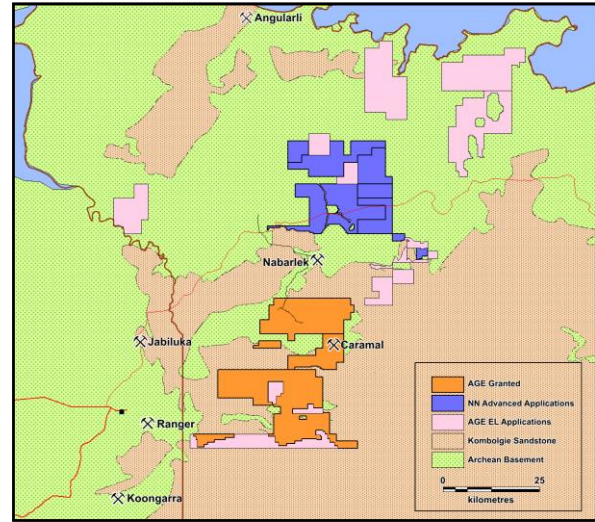
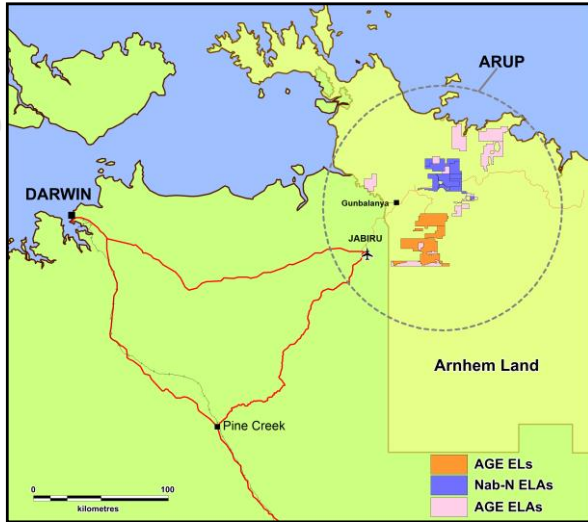
### Cobalt- Nickel

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.

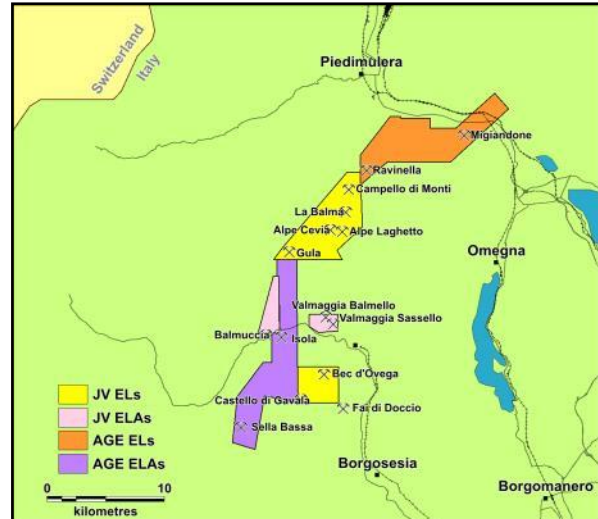
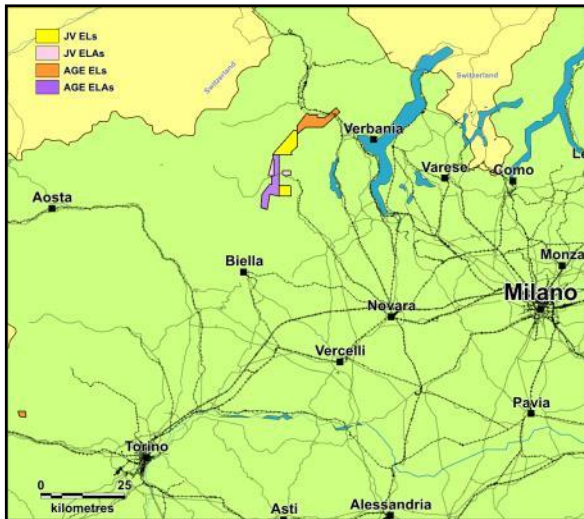
The project covers four titles containing ultramafic-hosted cobalt-nickel sulphide deposits that were mined between the 1860's and the end of World War II. Sulphides in pipe-like intrusive bodies and massive sulphide accumulations at the base of large, layered ultramafic intrusions were mined. The cobalt 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.



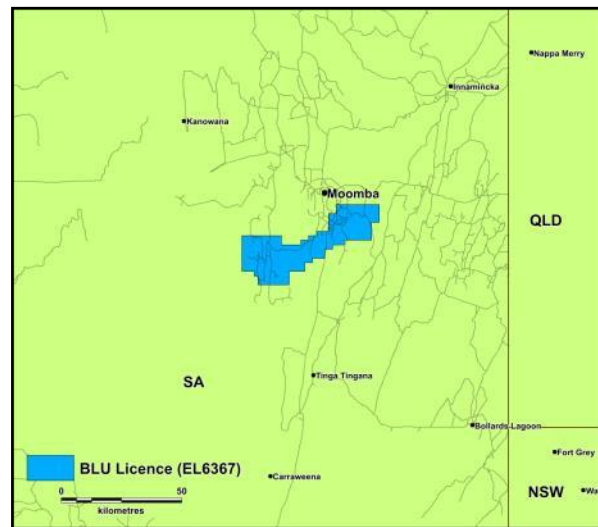
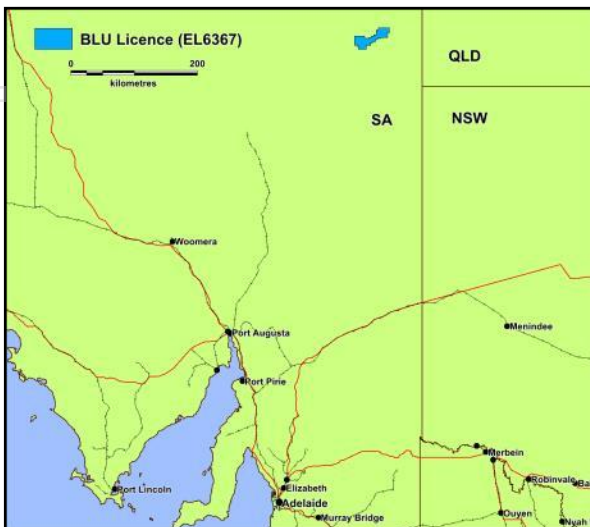
# NT Australia – ARUP U:

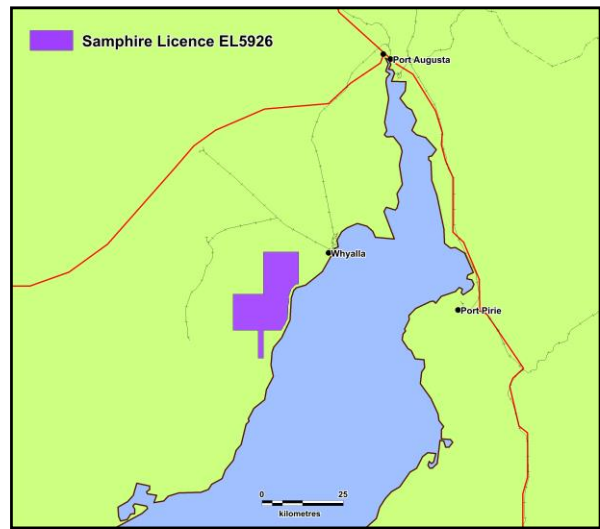
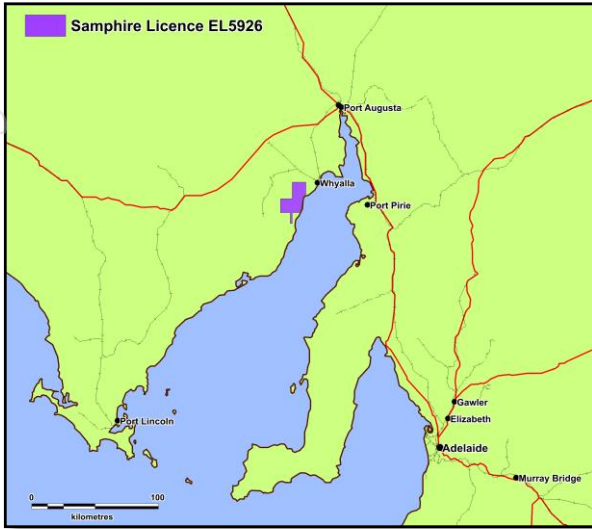


# Northwest Italy – Piedmont Ni-Co:



# SA Australia – Big Lake U:





*Project Location Diagrams*