

## Alligator to acquire 47 M lbs uranium resource in South Australia from Samphire Uranium – 11 June 2020

### Key Highlights

- Alligator Energy proposes to issue 679.6 m shares to Samphire Uranium Ltd. for the purchase of its subsidiary S Uranium Pty Ltd.
- Near surface resources totalling 46.6 Mlbs  $U_3O_8$  at a cut-off grade of 100 ppm (see below).
- Detailed laboratory testing indicates deposit is very amenable to in-situ recovery.
- Exploration targets beyond the current resources.
- SUPL's balance sheet includes net \$700,000 (approximately).
- South Australian location, augmenting Alligator's Big Lake Uranium project in the Cooper Basin.

### Summary

Alligator Energy (ASX: AGE, 'Alligator' or 'the Company') and unlisted public company Samphire Uranium Ltd (Samphire) have signed a Binding Terms Sheet for the purchase by Alligator of Samphire's subsidiary, S Uranium Pty Ltd (SUPL). SUPL owns the following key uranium resource and exploration assets (Samphire Project):

- Blackbush Inferred Mineral Resource Estimate (JORC 2012) comprising 64.5 million tonnes at a grade of 230ppm  $eU_3O_8$  containing 14,850 t (32.7 mill lbs)  $U_3O_8$  at a 100ppm cut-off grade <sup>1</sup>;
- Plumbush Inferred Mineral Resource Estimate (stated in compliance with JORC 2004) of 21.8 million tonnes at grade of 292ppm  $eU_3O_8$ , containing 6,300t (13.9Mlbs) of mineralisation at a 100ppm  $eU_3O_8$  cut-off grade <sup>2</sup>;
- Exploration Target – Host geology and anomalism extend beyond the current known mineralisation envelope with uranium intercepts obtained in drill holes up to 3km distant. A conceptual Exploration Target of 20 - 30Mt of sediment hosted mineralisation at 250 to 350ppm has been estimated.

*The Exploration Target and potential tonnages and grades are conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.*

In consideration for the acquisition of SUPL, Alligator will issue 679,561,608 AGE shares to Samphire who plan to immediately in-specie distribute the AGE shares to its shareholders. Samphire has share capital of 226,520,536 ordinary shares, hence each Samphire shareholder will receive three AGE shares for every Samphire share they hold. Upon successful completion of the transaction (subject to certain conditions precedent, including regulatory and both Company's shareholders approvals) the current 1,650 Samphire shareholders will collectively hold 32% of the expanded capital structure of AGE. Alligator has used on-market valuations of similar status uranium resource projects to inform the consideration agreed to acquire the Samphire Project.

The Directors of Samphire have advised that, upon completion of the in-specie distribution, they intend to wind up the company.

### The Opportunity

Alligator believes the abovementioned uranium resources provide positive value for AGE Shareholders and an opportunity to advance further work as follows:

Alligator Energy Ltd

ABN 79140575604

Suite 2  
128 Bowen Street  
Spring Hill,  
QLD 4000

Ph: (07) 3839 3904

ASX Code: AGE

Number of Shares:  
1,438.4 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)

- The grade–tonnage table for the Blackbush Inferred Mineral Resource (see Table 1) indicates the opportunity to increase cut-off grade for a higher resource grade. For example, a cut-off grade of 300ppm eU<sub>3</sub>O<sub>8</sub> gives a contained resource of 6,750 t (14.9 Mlbs) U<sub>3</sub>O<sub>8</sub> at a grade of 654 ppm (similar to Boss Resources' Honeymoon Project planned restart average grade – ASX:BOE release dated 21 Jan 2020).
- The Blackbush deposit and other mineralisation lies at a shallow depth of around 60 m in permeable sands, providing further support to its potential future extraction through either InSitu Recovery (ISR) or open pit methods depending on uranium market and price;
- Samphire (through its previous owner UraniumSA) undertook high quality laboratory testwork indicating high uranium leachability, and also undertook initial co-development work on resin extraction processes. Recent advances by ANSTO on continuous Ion Exchange (IX) and resins suitable for saline water environments indicate the likelihood of a future viable extraction flowsheet;
- The acquisition strongly augments Alligator's current and planned work on exploration for potential ISR style mineralisation on the Big Lake Uranium project in the Cooper Basin region.
- The Samphire transaction will more than double AGE's shareholder base, including investors interested and focussed on uranium projects and broadens the Company's overall exposure to uranium projects in supportive and stable jurisdictions.

#### Mineral Resource Estimate footnotes in Summary section:

1. See ASX:USA release 27 Sept 2013 for which the Competent Persons were Mr Russell Bluck and Mr Marco Scardigno.
2. This information was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported. See ASX:USA release 27 Sept 2013 and 1 Oct 2019 Samphire Annual Report for which the Competent Persons were Mr Russell Bluck and Mr Marco Scardigno. Refer also to Cautionary Statement in Appendix 1.

Greg Hall, Alligator CEO said *"We are very pleased to have concluded this Binding Terms Sheet with Samphire and we will work closely with the Samphire team to undertake all tasks to conclude the transaction."*

*"Alligator has used the combined experience and capacity of our team and advisors to review the Samphire Project and evaluate the potential within them for the future. The work previously undertaken on the resource, exploration targets and met testing has indicated the potential to move a possible project forward at the right time in the uranium price cycle, plus to look at expanded exploration potential in the area."*

*We will continue to advance our key exploration activities within the Alligator Rivers and BLU, our northern Italy nickel and cobalt opportunities, and further review additional external project opportunities within the uranium space. As the recent uranium spot price increase has shown, there is great uncertainty around the required uranium supply growth over the medium to long term, which is expected to ultimately translate through to higher prices on a sustained basis."*

*"Alligator Energy has one of the few Board, management and advisory teams that have discovered world class uranium projects, taken uranium projects through the public and political approval process within Australia, undertaken resource definition and into development, and managed and operated uranium mines."*

Martin Janes, Non-Executive Director for Samphire Uranium stated: *"The Directors of Samphire Uranium are pleased to be able to present this opportunity to its shareholders. It has been nearly 4 years since Samphire Uranium was established to hold the Samphire Project as an unlisted spin off from UraniumSA and now that the sentiment in the uranium market is improving, the Directors of Samphire believe that it is timely for the Samphire Project to be combined with a portfolio of other uranium assets under a Board and management team that has serious uranium credentials."*

## Samphire Uranium Ltd

In late 2007, UraniumSA (ASX: USA) discovered uranium mineralisation within the shallow Kanaka Beds of the Pirie Basin at Samphire, at 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.

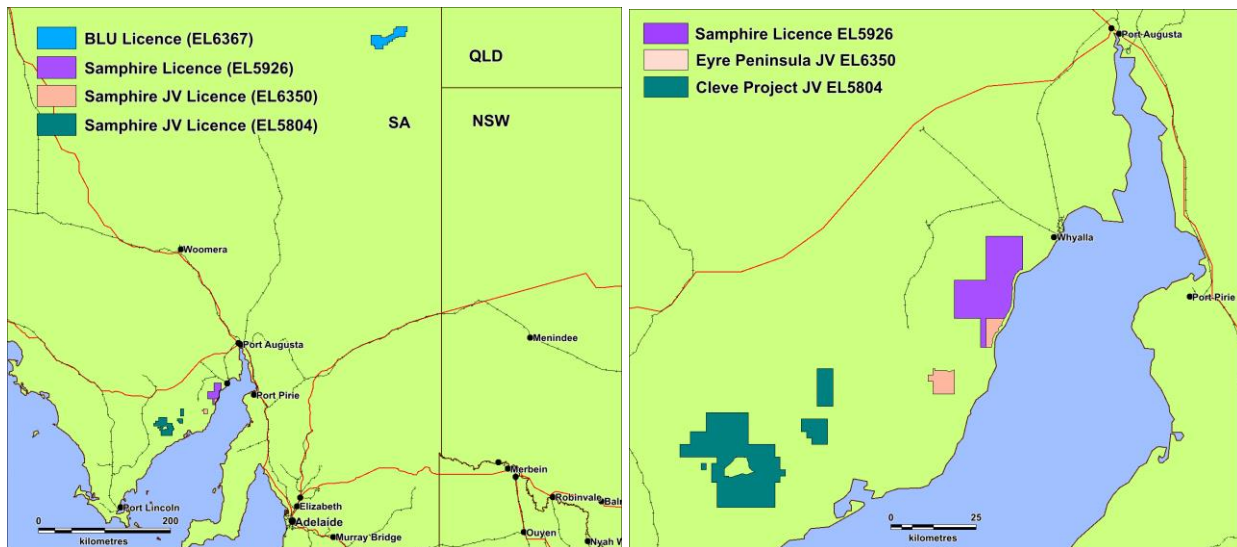


Figure 1: Map of SA and region showing location of projects near Whyalla

Work completed on the licences to date included extensive drilling within excess of 700 drill holes primarily focused around the Blackbush deposit leading to its JORC2012 resource classification and the Plumbush mineral occurrence leading to its JORC2004 resource classification. The majority of drilling has been conducted through mixed rotary mud, RAB and aircore methods and some limited diamond core holes at Blackbush. The distribution of historical drilling (refer figure 2) away from these known mineral occurrences is modest and will allow for ongoing exploration in potentially extending the known resources and continued testing of additional prospects.

Detailed geophysics have been carried out over the licences with high resolution gravity, EM and magnetics already completed forming an excellent framework for future and ongoing exploration. After successful completion of the proposed transaction, Alligator will review in detail the resource and exploration work undertaken to date, and will plan its initial steps in expanding the mineralisation through work on the Exploration Target in particular.



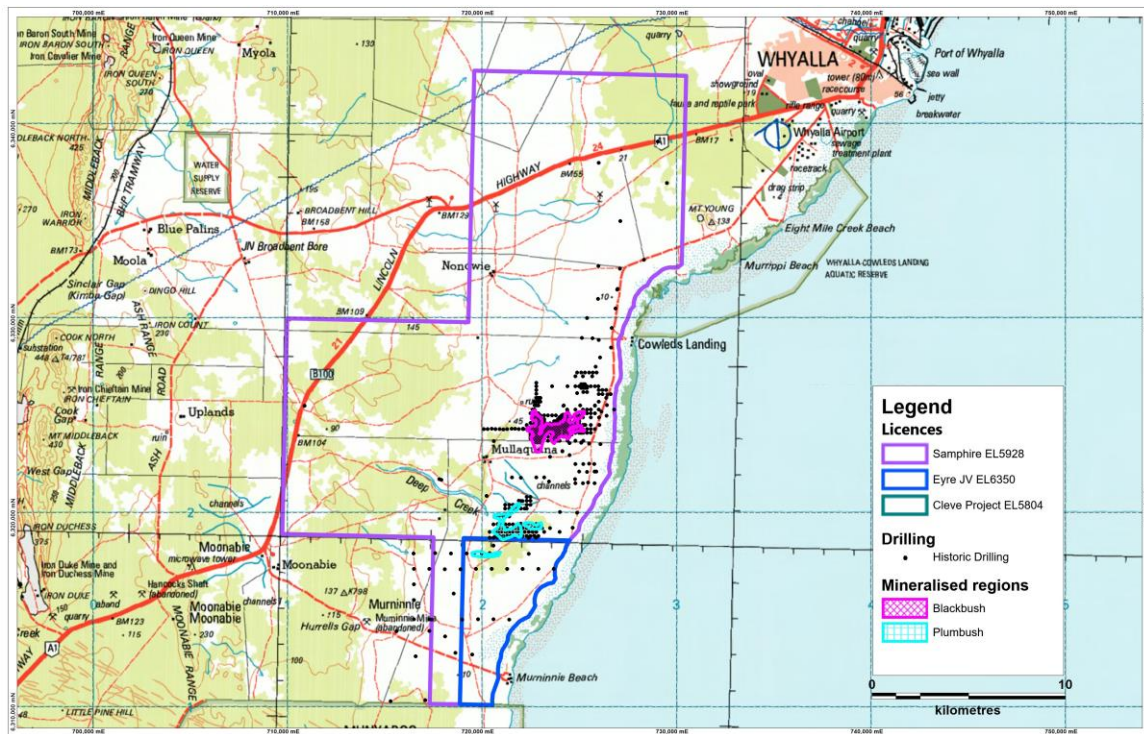


Figure 2: Map of Samphire Project region showing outline of resource and minerals estimates and drilling undertaken

The Blackbush and Plumbush deposits are interpreted to share the same geological setting, similar in mineralisation style, stratigraphy, depositional setting and geological structure. Uranium mineralisation is hosted by sub-horizontal sedimentary units comprising sand, minor lignites, clays and gravels, and in the Blackbush deposit partially along remnant structures within clay weathered Hiltaba Suite granite basement. Epithermal alteration is present within the granite and underlying the sediment-hosted mineralisation in the Blackbush deposit, and similar alteration is anticipated in the Plumbush deposit.

Uranium mineralisation is currently interpreted to occur in several styles such as roll front, within clay weathered granite, and narrow veinlets within the basement granites. On both a local and regional scale, mineralisation appears to have a strong relationship with underlying structures.

The current Plumbush resource<sup>2</sup> will require some additional work, including resource drilling, core drilling for metallurgical sampling, additional geological interpretation work and estimated economic evaluation to determine whether it can be upgraded to a JORC 2012 resource. Once the transaction is completed Alligator will plan and determine timing for the initial work required for this. Refer to the Cautionary Statement in Appendix 1.

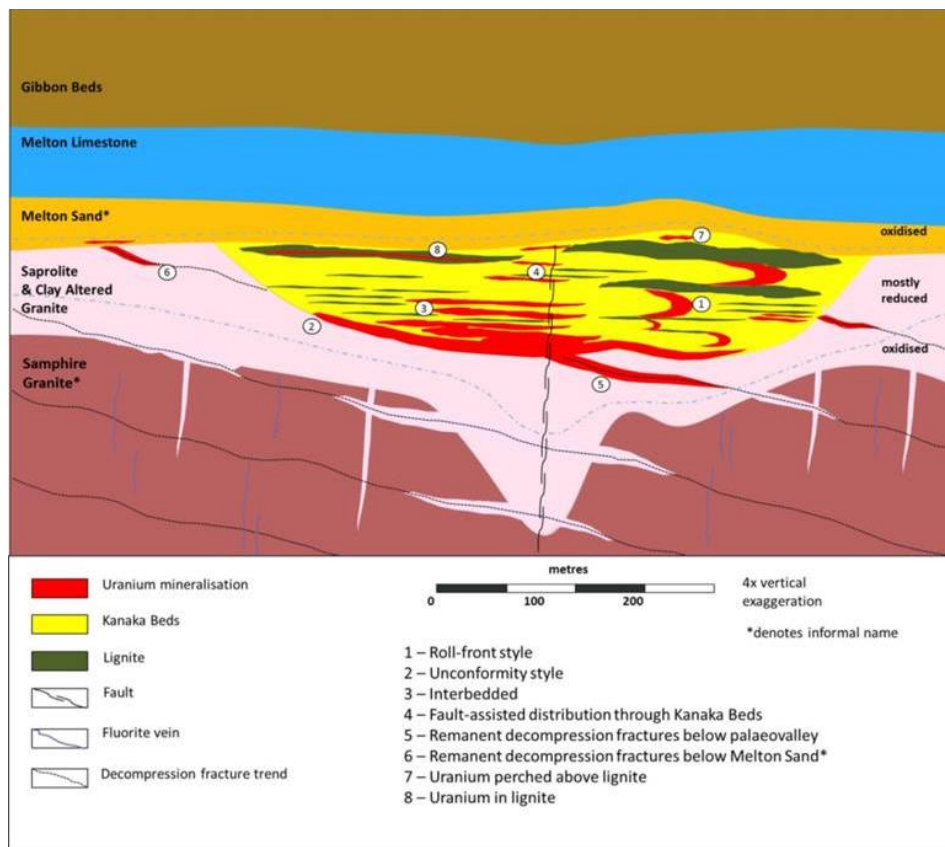


Figure 3: Blackbush resource stylised section

Once the Blackbush resource was established, Samphire undertook bottle roll tests from cored samples which showed the uranium was easily leached. An initial pilot test of permeability and solution extraction was undertaken with the installation of a ring of six injection wells around a central extraction well. Emission was obtained to complete a bromine solution test which indicated the ability to successfully extract a solution, however issues with the installation of two injection wells and the extraction well inhibited these results.

Co-development work with ANSTO and resin suppliers was commenced to determine a suitable resin for the saline water environment with partial success. Since that time, ANSTO has continued this work, and now has successfully tested resins in saline environments for the extraction of uranium, with a significant range of tests being undertaken on the Honeymoon Uranium Project for their feasibility study. ANSTO retains the IP for this process.

<b>Blackbush Deposit Resource Estimate - September 2013</b>										
Cut Off assumed ppm eU <sub>3</sub> O <sub>8</sub>	100	200	300	400	500	600	800	1,000	1,500	2,000
<b>Kanaka Beds SAND lithotype</b>										
Mean Grade <sup>1</sup> ppm eU <sub>3</sub> O <sub>8</sub>	295	500	695	865	1,015	1,170	1,460	1,780	2,470	3,025
Contained Tonnes <sup>2</sup> U <sub>3</sub> O <sub>8</sub>	8,400	6,170	4,900	4,050	3,450	3,050	2,300	1,850	1,150	750
<b>Kanaka Beds FGOR lithotype</b>										
Mean Grade <sup>1</sup> ppm eU <sub>3</sub> O <sub>8</sub>	235	405	575	695	810	935	1,155	1,370	2,085	3,125
Contained Tonnes <sup>2</sup> U <sub>3</sub> O <sub>8</sub>	1,700	1,100	750	600	500	400	250	140	50	NA
<b>Unconformity zone</b>										
Mean Grade <sup>1</sup> ppm eU <sub>3</sub> O <sub>8</sub>	265	460	590	720	855	980	1,220	1,525	2,305	2,640
Contained Tonnes <sup>2</sup> U <sub>3</sub> O <sub>8</sub>	950	650	500	400	350	300	200	100	50	NA
<b>Melton Sand lithotype</b>										
Mean Grade <sup>1</sup> ppm eU <sub>3</sub> O <sub>8</sub>	180	275	355	425	NA	NA	NA	NA	NA	NA
Contained Tonnes <sup>2</sup> U <sub>3</sub> O <sub>8</sub>	370	175	70	NA	NA	NA	NA	NA	NA	NA
<b>Saprolite lithotype</b>										
Mean Grade <sup>1</sup> ppm eU <sub>3</sub> O <sub>8</sub>	150	330	475	590	720	810	1,035	1,290	NA	NA
Contained Tonnes <sup>2</sup> U <sub>3</sub> O <sub>8</sub>	3,450	800	450	300	200	150	50	NA	NA	NA
<b>Totals</b>										
Contained Tonnes <sup>2</sup> U <sub>3</sub> O <sub>8</sub>	14,850	8,900	6,750	5,400	4,500	3,850	2,800	2,150	1,250	850
Mean Grade <sup>1</sup> (ppm)	230	460	645	810	960	1,105	1,395	1,715	2,445	3,010
Mineralised Tonnes <sup>3</sup> (Mt)	64.5	19.5	10.5	6.5	4.5	3.5	2	1.5	0.5	NA

<sup>1</sup> mean grade rounded to nearest 5ppm. <sup>2</sup> contained tonnes rounded to nearest 50t. <sup>3</sup> mineralised tonnes rounded to nearest 0.5 Mt.  
Apparent numerical differences in the table arise from the rounding of raw underlying data.

Table 1: Blackbush resource at various cut-off grades – from UraniumSA (ASX:USA) - ASX release – 27th Sept 2013

Following approval by UraniumSA Limited shareholders at an Extraordinary General Meeting held on 22 June 2016 the Samphire Uranium Project Assets are now wholly owned by Samphire. Samphire is currently an unlisted public company with an issued share capital of 226,520,536 fully paid ordinary shares and 1,650 shareholders.

### Binding Terms Sheet

The parties have signed a Binding Terms Sheet for the transaction and have agreed to use their best endeavours to negotiate in good faith to enter into a Share Purchase Agreement for all of the shares in SUPL that is in a fuller form but consistent with the Terms Sheet by no later than 30 June 2020.

SUPL holds the Samphire project which comprises interests in Exploration Licences 5926, 6350 and 5804, all mining information generated from activities on the said Exploration Licences, all authorities and approvals in and relating to the said Exploration Licences and all associated joint venture or farm-in arrangements.

In consideration for the acquisition of SUPL, Alligator plans to issue (subject to shareholder approval) 679,561,608 AGE shares valued at \$0.006 per share to Samphire who plan to immediately in-specie distribute the AGE shares to its shareholders. Samphire has share capital of 226,520,536 ordinary shares, hence each Samphire shareholder will receive three AGE shares for every Samphire share they hold.

Upon successful completion of the transaction (subject to certain conditions precedent, including regulatory and both Company's shareholders approvals) the current 1,650 Samphire shareholders will collectively hold 32% of the expanded capital structure of AGE. The 679,561,608 AGE shares to be issued represents 47.2% of the current issued share capital of AGE. The largest current shareholder of Samphire is expected to hold approximately 5.7% of AGE immediately following the completion of the in-specie distribution.

Alligator has used on-market valuations of similar status uranium resource projects to inform the consideration agreed to acquire the Samphire Project.



The Directors of Samphire have advised that, upon completion of the in-specie distribution, they intend to wind up the company.

The Transaction is subject to satisfying or waiving certain Conditions Precedent which include:

- Obtaining approval from the ASX that the Transaction will not require AGE to comply with Chapters 1 and 2 of the Listing Rules and that the determination by the ASX is on terms satisfactory to AGE and further engagement with ASIC and ASX in relation to regulatory requirements to complete the Transaction;
- Shareholder approval for the issue of the AGE shares;
- Samphire securing shareholder approval for the sale of the shares in SUPL, the in-specie distribution of the issued AGE shares to its shareholders and the winding up of the company;
- Samphire preparing a budget and managing its affairs such that at completion of the transaction, SUPL will hold net cash of approximately \$700,000; and
- Finalisation of any remaining technical, financial and legal due diligence.

Alligator is targeting an EGM to obtain Shareholder approval in August or early September 2020 and the Conditions Precedent must be met by 30 September 2020 unless an extension is mutually agreed in writing between the parties.

There are no immediate proposed changes to the Board or Senior Management of Alligator in connection with the Binding Terms Sheet, however the Alligator Board will be considering the potential skills needed to progress the Company's combined projects.

The likely effect of the Transaction, once approved, will be to increase the consolidated total assets by \$4.1m and increase annual minimum tenement expenditures for 100% owned tenements (prior to any relinquishments in lieu of expenditures) by \$360,000.

Approved for release by the Board of Alligator Energy Ltd.

#### **FOR FURTHER INFORMATION, PLEASE CONTACT**

Mr Greg Hall  
CEO & Director  
Alligator Energy Ltd  
Email: [gh@alligatorenergy.com.au](mailto:gh@alligatorenergy.com.au)

Mr Mike Meintjes  
Company Secretary  
Alligator Energy Ltd  
Email: [mm@alligatorenergy.com.au](mailto:mm@alligatorenergy.com.au)

#### **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.

#### **Nickel/Cobalt**

Applicable information in this report is based on current and historic Exploration Results compiled by Mr Andrew Vigar who is a Fellow of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Vigar is a non-executive director of Alligator Energy Limited, 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 Vigar 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.

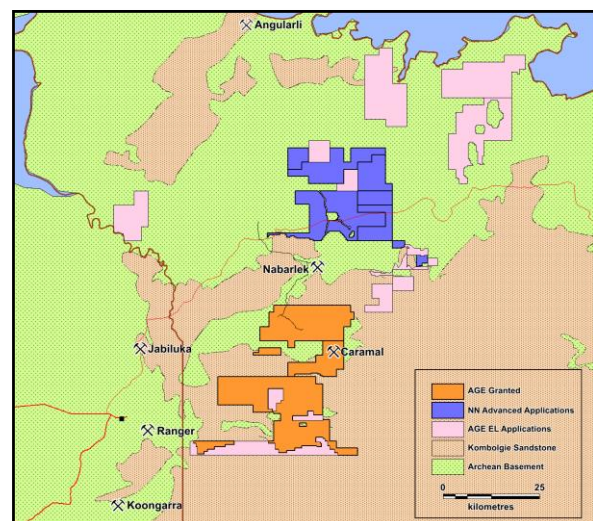
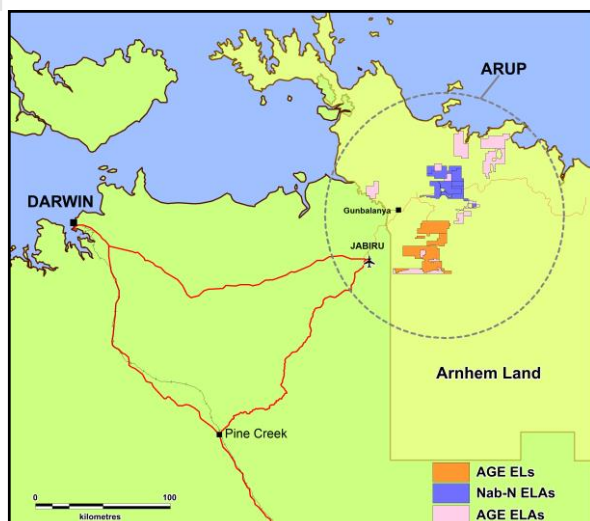
The Company also has in excess of 1000km<sup>2</sup> of Exploration Licence applications awaiting grant within the Alligator Rivers Uranium Province.

Alligator also has exploration ground in South Australia (SA) having entered into a binding Heads of 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.

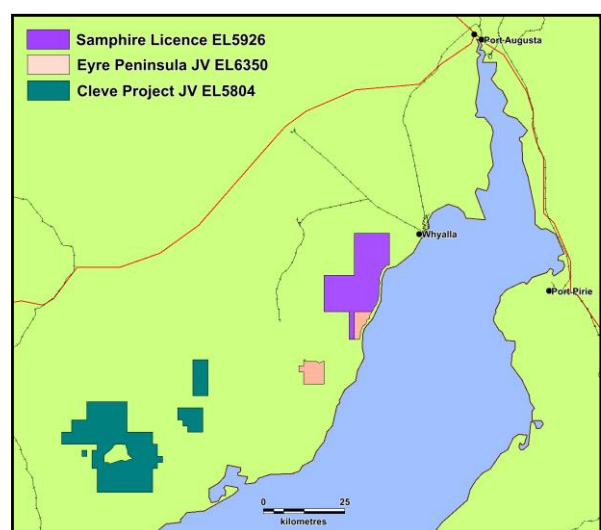
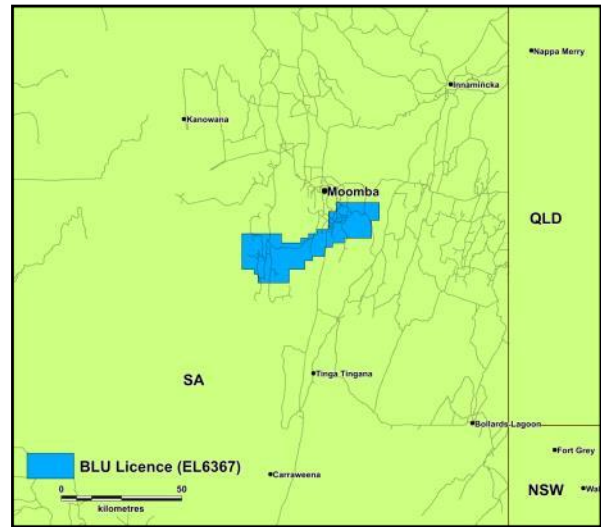
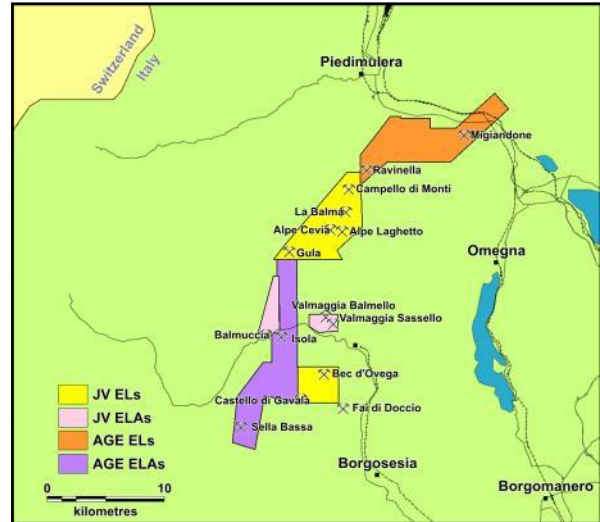
### Cobalt- Nickel

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.







Page | 9

## Appendix 1

### Plumbush Inferred Mineral Resource - Cautionary Statement

In relation to the Plumbush Inferred Mineral Resource Estimate (stated in compliance with JORC 2004) of 21.8 million tonnes at grade of 292ppm  $eU_3O_8$ , containing 6,300t (13.9Mlbs) of mineralisation at a 100ppm  $eU_3O_8$  cut-off grade the following cautionary statement is made:

- the Exploration Results have not been reported in accordance with the JORC Code 2012;
- a Competent Person has not done sufficient work to disclose the Exploration Results in accordance with the JORC Code 2012;
- it is possible that following further evaluation and/or exploration work that the confidence in the prior reported Exploration Results may be reduced when reported under the JORC Code 2012;
- nothing has come to the attention of the acquirer that causes it to question the accuracy or reliability of the former owner's Exploration Results; but
- the acquirer has not independently validated the former owner's Exploration Results and therefore is not to be regarded as reporting, adopting or endorsing those results.

The Plumbush Inferred Mineral Resource is JORC 2004 compliant and therefore may not conform to the requirements in the JORC Code 2012. The Inferred Mineral Resource was previously announced by Uranium SA (ASX:USA) on the 8<sup>th</sup> April, 2011. All work to establish this Inferred Mineral Resource was completed by the vendor of the Samphire Project. It is the acquirer's view that the reliability of the Exploration Results are of a good standard. The drilling methods, drilling density, sampling, and downhole geophysical surveys are documented and appear to be of reasonable quality. Additionally, the geological setting and mineralisation style correlate with what is reported at the neighbouring Blackbush deposit (JORC 2012 compliant).

The Inferred Mineral Resource was based on drilling data from 43 rotary mud holes, on roughly 200metre centres. All holes were gamma probed using a suitably calibrated tool. No studies were completed on mineralogy or bulk density, with assumptions being made from the geologically similar neighbouring JORC 2012 compliant Blackbush resource.

No further recent Exploration Results or data has been identified that would be relevant to understanding the Exploration Results

An initial assessment suggests that to restate the Plumbush Inferred Mineral Resource as 2012 JORC compliant, landholder access agreements would need to be established, a small core drill hole program would likely be required which would include some geochemical, mineralogical and density sampling. The acquirer has not established a timeframe or budget for further work at Plumbush and it should be noted that this is expected to have a lower priority than the Blackbush deposit. Any short term funding requirements will occur using internal financial resources.

The Competent Person's Statement for this release covers this Cautionary Statement.