

## Alligator Commences Airborne Electromagnetic Survey at the Big Lake Uranium Project – 7 May 2021

### Key Highlights

- Alligator has mobilised an airborne electromagnetic survey designed as the first step to testing the potential for a green field ISR uranium opportunity in South Australia.
- The program is partially funded by the **\$152,400 exploration grant** (ASX announcement: 26 June 2020) by SA Government as part of the Accelerated Discovery Initiative.
- Alligator has agreed with the Shareholders of Big Lake Uranium Pty Ltd an extension of six months to the Earning Period (now 31 December 2021) for completion of the proposed exploration work program. This extension constitutes a variation to the terms of the Acquisition Shares and is subject to ASX and Shareholder approval.
- Exploration at the Big Lake Project is targeting the discovery of channel hosted roll front resources comparable to existing resources such as Honeymoon, Four mile and Beverley within the State.

**Alligator Energy (ASX: AGE, 'Alligator' or 'the Company')** is pleased to announce that it has commenced mobilisation of its contractor to undertake airborne electromagnetic data acquisition at the Big Lake Uranium (BLU) Project in South Australia.

The purpose of the survey is to delineate interpreted palaeochannels within the Eyre formation of the Tertiary sediments that would form a favorable environment for uranium deposition. SkyTEM Australia were selected to complete the survey utilising the SkyTEM 304 system which is proven to deliver accurate data from the top few metres to depths of up to 350 metres. A total of 1,350 line kilometres are proposed, over north south lines spaced at between 400 and 500 metres, to cover the prospective target area (Refer Figure 1).

The project was granted funding under the South Australian Governments Advanced Discovery Initiative (ADI) scheme. Following a stage 2 application to the scheme in March 2021, the company was awarded **\$152,400** towards its **"Greenfields exploration for ISR uranium deposits in the Cooper Basin"**.

Funding is provided as part of the South Australian Government's Growth State Agenda, with the aim to accelerate mineral discovery through innovative exploration and research projects in regional and frontier terrains throughout South Australia.

Alligator has previously advised the market (ASX announcement: 28 January 2021 and September 2020 Quarterly Activities Report) that difficulties were being experienced with COVID interstate travel restrictions for planned work on the Big Lake Uranium Project. Specifically, suitable geophysics crews were reluctant to travel from their home base (mainly WA) and at times Alligator's geologists were unable to enter South Australia from QLD. As a result the proposed work program planned for the Earning Period (to 21 July 2021) specified in the Big Lake Uranium Share Sale Agreement executed on 4 December 2019 could not be completed. This proposed work program is intended to cover both a geophysics survey and a drilling program based on the targets identified from the survey.

Alligator Energy Ltd

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ASX Code: AGE

Number of Shares:  
2,362M Ord Shares  
125.8M Listed  
Options  
60M Perform  
Shares  
23.4M Unlisted  
Options

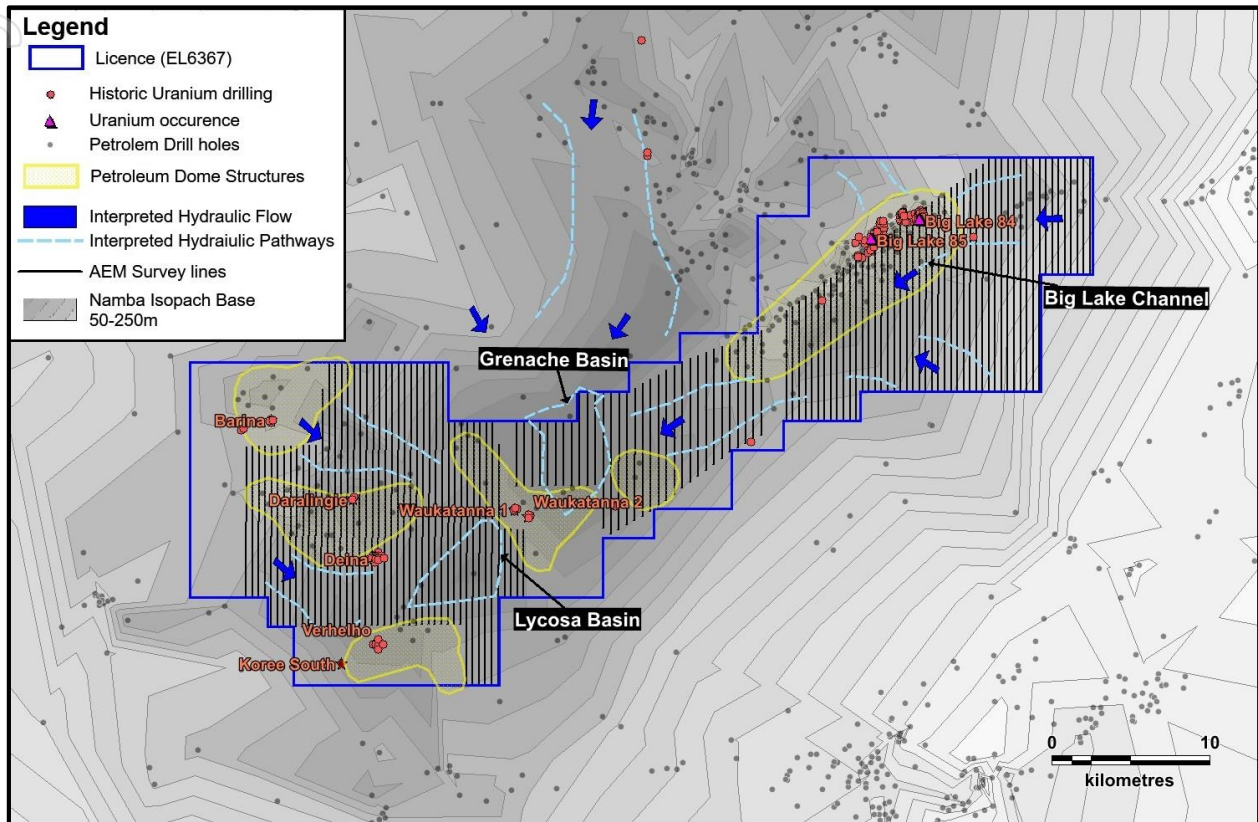
Board of Directors:

Mr Paul Dickson  
(Non Exec.  
Chairman)

Mr Peter McIntyre  
(Non Exec. Director)

Mr Andrew Vigar  
(Non Exec. Director)

Mr Greg Hall  
(CEO & Managing  
Director)



**Figure 1. Top of Eyre formation isopach with proposed AEM survey lines over interpreted hydraulic pathways, petroleum dome structures and historic drilling**

Alligator and the Shareholders of Big Lake Uranium Pty Ltd have now agreed an extension to the Earning Period from 21 July 2021 to 31 December 2021 to enable completion of the proposed work program (Proposed Variation). In lieu of granting this extension Alligator has agreed to the payment of a variation consideration in the form of a one-off cash payment of \$30,000 within 10 business days of the Proposed Variation becoming into effect.

The Proposed Variation extends the time to satisfy the Milestone for the relevant Performance Shares (see Appendix A), which are categorised as the Acquisition Shares. This constitutes an amendment to the terms of those Performance Shares and any change to or amendment of the Performance Shares requires prior ASX and Shareholder Approval. Alligator will be engaging with the ASX to seek a waiver from this requirement on the basis that the extension was required as a result of a 'force majeure' event created by the COVID pandemic. Should a waiver not be possible then the Company will determine the appropriate timing of a shareholder meeting to secure the requisite approval prior to 21 July 2021.

**Greg Hall, Alligator CEO** said

*"We are hugely excited to commence airborne exploration of the Big Lake project, and we see the program as a key step to advancement and testing of a conceptual new ISR field in South Australia. The intention is for the survey to allow focused first pass drill testing in Q3 2021."*

*"The South Australian ADI scheme is an excellent program with strong competition for funding and shows the department's committed and ongoing support towards the mineral industry with a combined \$10m in grants to be awarded as part of the scheme. We are proud to be operating in two outstanding supportive Australian jurisdictions of South Australia and the Northern Territory for our uranium exploration programs."*

## Big Lake Uranium Opportunity

Alligator entered into a Share Sale Agreement with Big Lake Uranium Pty Ltd (BLU) in 2019 which provides the opportunity to earn 100% interest in the Project. BLU is a privately-owned company and is a holder of Exploration Licence 6367 in the Cooper Basin South Australia which was granted on 23 July 2019.

- **South Australian jurisdiction** – Existing uranium production, with strong Government and public familiarity, excellent regulator experience and uranium concentrate logistics
- **Shallow sandstone hosted deposits** - In Situ Recovery (ISR) – deposit style is amenable to rapid and low-cost exploration, and exploitation
- **Strong Uranium endowment in region** – crustal scale heat anomaly – uranium rich basements – uranium present within drainage channels – host to world class ISR deposits
- **Untested model of familiar mineralisation setting** – *Source*: U rich basement rocks – *transport*: systems allowing fluids from uranium bearing basement rocks into sandstone basins – *trap*: hydrocarbons (gas) providing reductant for uranium deposition. Similarities with the Kazakhstan, Texas and Wyoming uranium fields
- **Known uranium** – oil and gas well gamma logging showing uranium – one previous explorer found anomalous uranium, but failed to test the paleochannel model

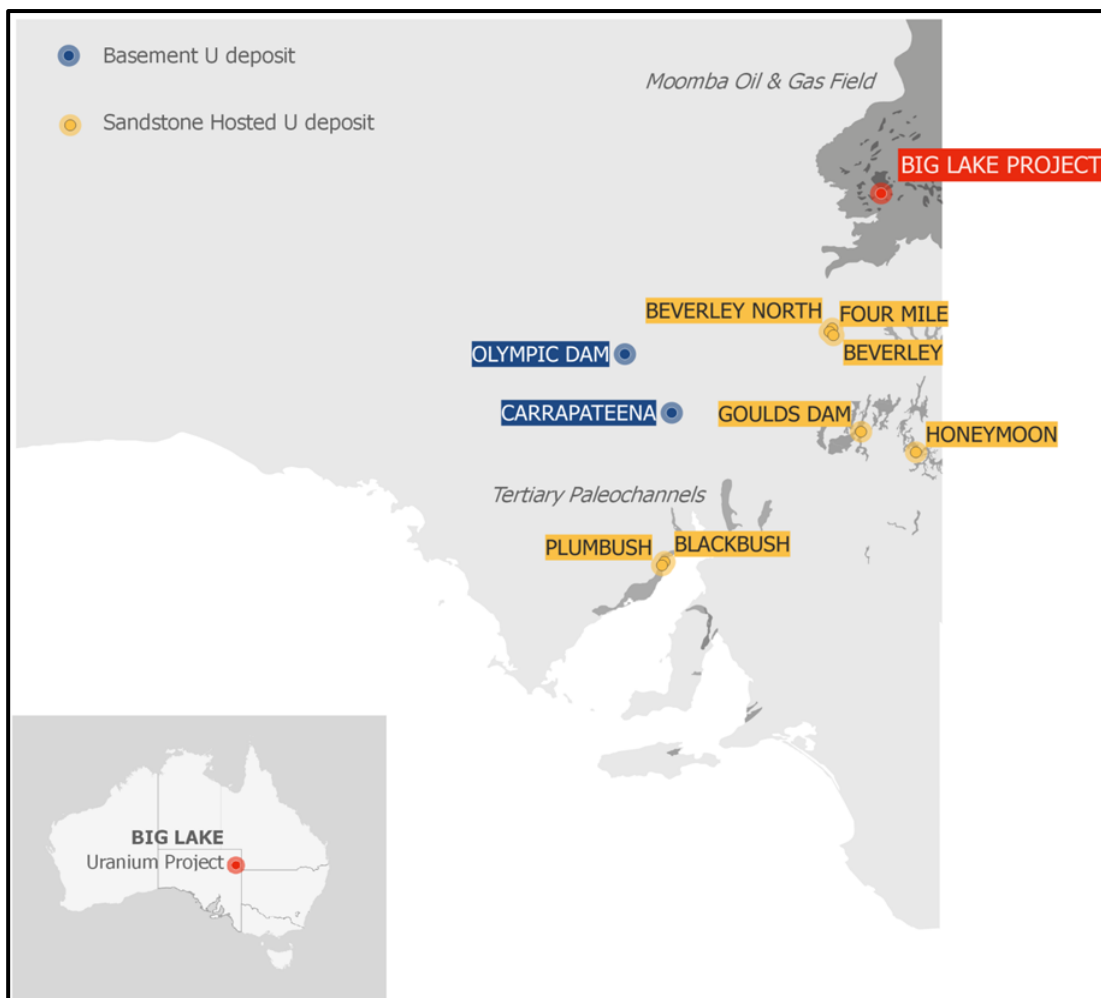


Figure 2. Location of BLU Project in South Australia and existing uranium deposits.

The Big Lake Project is targeting sandstone hosted uranium in the Moomba Gas Fields, South Australia.

The Big Lake Project targets REDOX and roll front uranium mineralisation within paleochannels of the Lake Eyre formation. The model is for uranium to be sourced from distal uranium rich rocks and transported as oxidised fluids through paleochannels. The area is located on the margins of deep-seated dome structures associated with known gas reservoirs within the Moomba Gas Fields of South Australia.

Initial work completed by BLU included proprietary isopach modelling that identifies variations in basement lithology depths, the location of constraining ridge lines and hydrocarbon influenced domes. The modelling of basement topography has allowed interpretation of hydraulic pathways through potential paleochannels. This formed the basis for the area selection and planned geophysics within the Cooper Basin.

One phase of uranium exploration was previously conducted in the region. This program targeted known gamma anomalies identified in historic oil and gas wells. Anomalous uranium was intersected, however the program failed to test the interpreted paleochannels along which uranium is believed to have been transported and deposited within roll-front and REDOX environments. The signatures of these existing anomalies are deemed typical of oxidised tails, indicating future exploration would need to be down hydraulic gradient of these intercepts. This next phase of work is designed to accurately identify and map these favourable channels allowing considered drill testing of the concept.

Approved for release by the Board of Alligator Energy Ltd

#### FOR FURTHER INFORMATION, PLEASE CONTACT

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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.

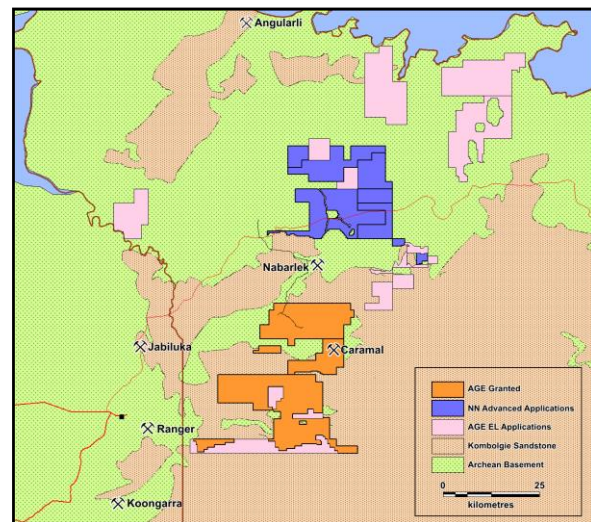
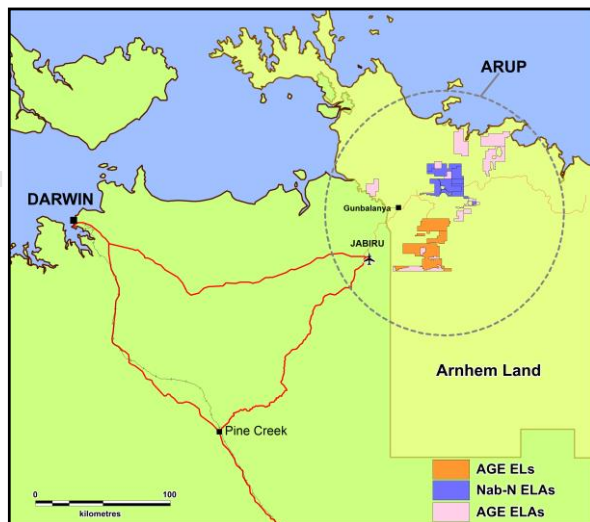
Alligator also has exploration ground in South Australia (SA) having entered into a Share Purchase Agreement to obtain up to 100% of the BLU project. This project represents an exploration opportunity for ISR shallow sandstone hosted style deposits in the Cooper Basin of SA, similar to those of the Beverley,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

Alligator is in the process of finalising a Share Purchase Agreement with Samphire Uranium Limited for the acquisition of 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.

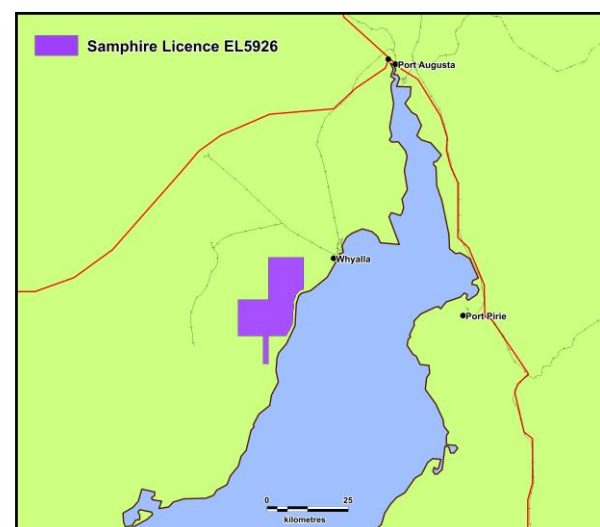
### Cobalt- Nickel

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.



**Project Location Diagrams**



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## Appendix 1

### Performance Shares on Issue

A Listing Rule 6.1 waiver was granted in relation to the Performance Shares issued under the terms of the Big Lake Uranium Farm-in and Share Sale Agreement. The waiver granted by the ASX included the following disclosure requirements in each Quarterly, Half Year and Annual Report:

1. Number of Performance Shares on issue at Quarter end: 60,000,000
2. Summary of the terms and conditions of the Performance Shares: See details below
3. Performance Shares converted or cancelled during the Quarter: Nil
4. Performance Share milestones met during the Quarter: Nil

### Summary of terms and conditions attaching to the Big Lake Uranium Performance Shares

#### **Rights attaching to Performance Shares**

- (a) Each Performance Share is a share in the capital of Alligator Energy Limited (**AGE** or the **Company**) (**Performance Share**).
- (b) A Performance Share shall confer on the holder (**Holder**) the right to receive notices of general meetings, financial reports and accounts of the Company that are circulated to shareholders of the Company (**Shareholders**).
- (c) The Holder has the right to attend general meetings of Shareholders (**General Meeting**). A Performance Share does not entitle the Holder to vote on any resolutions proposed at a General Meeting.
- (d) A Performance Share does not entitle the Holder to any dividends.
- (e) The Holder of a Performance Share is not entitled to participate in the surplus profits or assets of the Company upon the winding up of the Company.
- (f) The Holder of a Performance Share is not entitled to a return of capital upon a reduction of capital or otherwise.
- (g) A Performance Share is not transferable, except as otherwise contemplated by these terms.
- (h) The Holder of a Performance Share will not be entitled to participate in new issues of capital offered to holders of shares such as bonus issues and entitlement issues.
- (i) A Performance Share gives the Holder no rights other than those expressly provided by these terms and those provided at law where such rights at law cannot be excluded by these terms.
- (j) The Performance Shares will not be quoted on ASX. However, upon conversion of the Performance Shares into Shares, the Shares will (as and from allotment) rank equally with and confer rights identical with all other Shares then on issues and the Company must within two (2) Business Days after the conversion, apply for official quotation of the Shares arising from the conversion on ASX.
- (k) Shares issued on conversion of the Performance Shares must be free from all encumbrances, securities and third party interests. The Company must ensure that Shares issued on conversion of the Performance Shares are freely tradeable, without



being subject to on-sale restrictions under section 707 of the Corporations Act, on and from their date of issue.

- (l) The terms of the Performance Shares may be amended as required from time to time in order to comply with the ASX Listing Rules or a direction of the ASX regarding the terms.
- (m) If the Company is listed on the ASX and undertakes a reconstruction or reorganisation of its issued capital, all rights of a Holder of Performance Shares will be changed to the extent necessary to comply with the ASX Listing Rules at the time of the reconstruction or reorganisation.
- (n) The Performance Shares give the holder no other rights save for those expressly set out in these terms and any other rights provided by law which cannot be excluded by these terms.

### Conversion of Performance Shares – Performance Milestones

- (a) Subject to the below clauses, a Performance Share will convert into one (1) fully paid ordinary share in AGE (**Share**), subject to satisfaction of the milestone set out below applicable to the relevant tranche of Performance Shares (collectively, the **Milestones**, each a **Milestone**), on the date specified in the Milestone applicable to the relevant Performance Share:
  - (1) For the Acquisition Performance Shares: AGE, on completion of the farm-in work program, expending at least \$220,000, electing to acquire all of the shares in Big Lake Uranium Pty Ltd (**BLU**) before 21 July 2021;
  - (2) For the Contingent Consideration/Discovery Performance Shares: on discovery and definition of a JORC compliant Inferred Resource of 25 million lbs U3O8 at 1,000ppm uranium or greater on the Big Lake Uranium Project within eight (8) years;
- (b) The Company will issue the Holder with a new Share certificate for the Shares as soon as practicable following the conversion of a Performance Share into a Share.
- (c) The Milestones must be achieved before the date presented in each Milestone (**Expiry Date**).
- (d) For a class of Performance Shares if a Milestone is not achieved before the Expiry Date, then all of the Holders' Performance Shares of that class will automatically consolidate into one (1) Share only (**Automatic Conversion**).
- (e) Notwithstanding anything else in these terms, the conversion of a Performance Share is subject to compliance at all times with the Corporations Act and the ASX Listing Rules.
- (f) The Shares into which Performance Shares will convert will rank pari passu in all respects with existing Shares and will confer rights identical with all other Shares then on issue.
- (g) The Milestones may only be amended with approval of Shareholders in General Meeting and a voting exclusion statement applies in relation to any holder of Performance Shares.