

Assay Results from the Big Lake Uranium Project confirm Significant Uranium Discovery

Alligator Energy Limited **ASX: AGE (Alligator or the Company)** is pleased to advise that chemical assay results from its inaugural drilling program at the **Big Lake Uranium Project (Big Lake)**, South Australia confirm preliminary findings of a **significant new uranium discovery**¹.

Highlights

- In August 2024, Alligator reported that its inaugural drilling program had intersected significant thicknesses of anomalous uranium mineralisation within interbedded palaeochannel sand units of the Namba Formation.
- The discovery is the first proof of concept that significant uranium is present within the Lake Eyre basin sediments that lie above the hydrocarbon-rich Cooper Basin and within potentially In-Situ Recovery (ISR) amenable host and depths.
- Laboratory chemical assay results validate the in-field XRF measurements for contained uranium. These include:
 - AC24-021 20m @ 110 ppm U from 106 m
 - AC24-022 35 m @ 117 ppm U from 93 m
 - AC24-023 5 m @ 47 ppm U from 104 m
 - AC24-025 10 m @ 138 ppm U from 108 m
- An improved result was noted in drillhole AC24-022 where in-field XRF detected 5m @ 130ppm U whereas lab assay shows a significant grade thickness of 35m @ 117ppm U.
- Alligator is currently in the process of finalising approvals for follow-up drilling in the area for Q1 2025, following a Native Title site heritage clearance scheduled for Q4 2024. Additional drill lines are also planned to test other locations for fertile stratigraphy and interpreted paleochannels.

Alligator's CEO Greg Hall stated: *"The assay results validate our initial findings of the uranium discovery at our Big Lake Project and indeed, reflect some improvement on what we had observed in the field. The consistency and thicknesses of the intersections highlight the significant potential for the Project from what was an inaugural drilling program in a frontier and untested portion of the Lake Eyre/Cooper Basin system, northern South Australia.*

¹ ASX release 13 August 2024 – Significant New Uranium Discovery at Big Lake Uranium Project, SA
<https://wcsecure.weblink.com.au/pdf/AGE/02838091.pdf>

Having confirmed results, we are eager to move forward with the next drilling round scheduled for early next year. Planning for the drill campaigns is always done in consultation with the Traditional Owners, pastoralists and other stakeholders in the region, who have greatly assisted with our exploration endeavours to date.

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As documented in our ASX Release 13 August 2024¹ Alligator’s inaugural drill program within its 100% owned Big Lake Uranium Project (EL6367) reported evidence of oxidised and reduced sands in holes drilled at “Site 10” (**Figure 1**) which is synonymous with roll-front uranium mineralising systems. This discovery is the first proof of concept that significant uranium is present within the shallow basin sediments that lie above the hydrocarbon-rich Cooper Basin and are within In-Situ Recovery (ISR) amenable host environment.

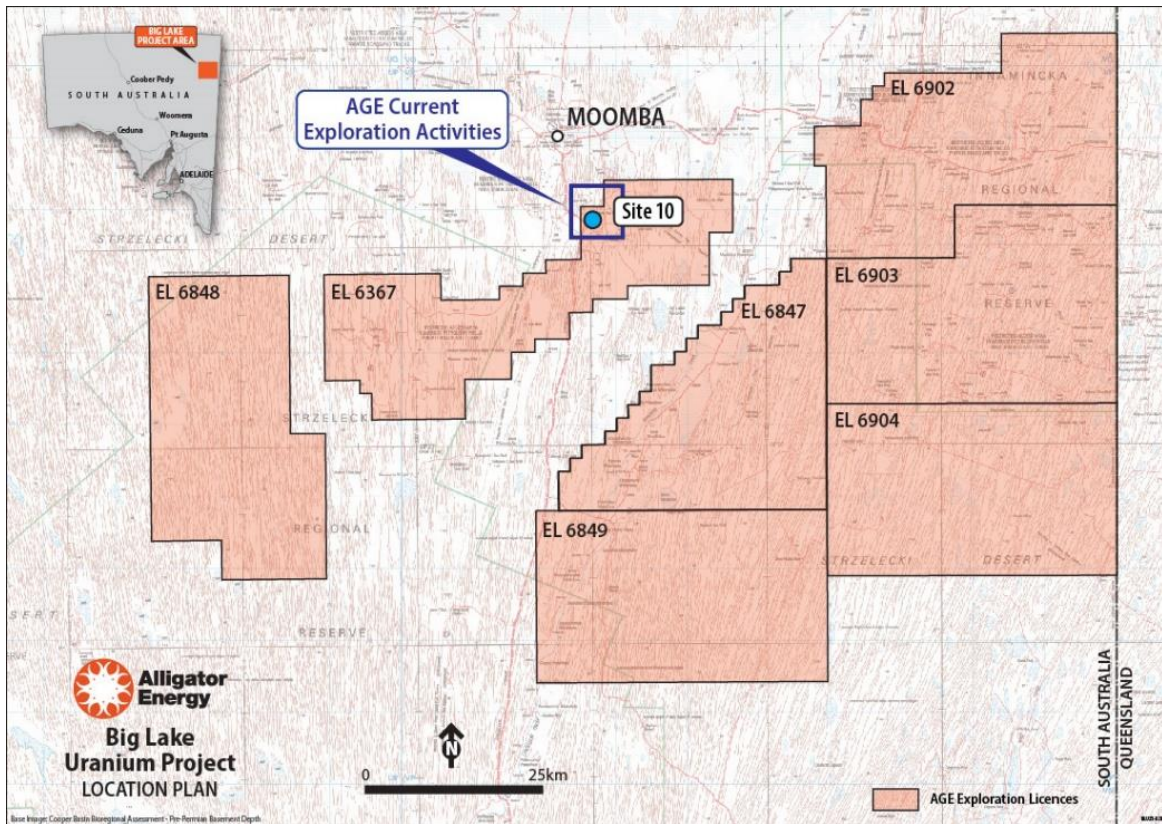


Figure 1: Alligator’s significant tenement holding over the southern Cooper Basin which comprise the Big Lake Project. Area of current AGE drilling activities and location Site 10 denoted.

The objective of the inaugural program was to investigate the region’s stratigraphy and the potential for uranium mineralisation in the shallow basin sediments that lie above the hydrocarbon-rich Cooper Basin; this setting having many attributes seen in other global hydrocarbon-related ISR uranium fields around the world (refer **Figure 2**). A historical drilling program in the region by a previous company (TC Developments) ~15 years ago indicated traces of uranium in thin clay bands in and around existing oil and gas wells. None of these holes were drilled in palaeochannel features within the upper (<300m) sedimentary sequence of the Basin.



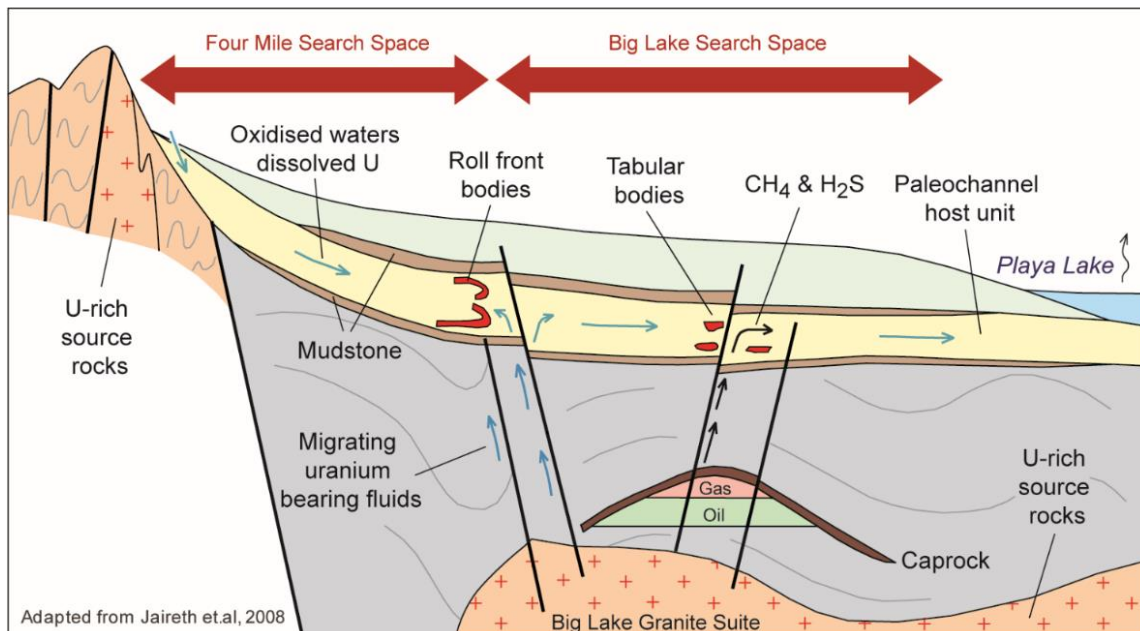







Figure 2: Basic conceptual model for the Big Lake Project.

AGE's strategy is to specifically target the northern extensions of the same Tertiary Namba and Eyre sedimentary formations which host the Beverley, Four Mile and Honeymoon In-Situ Recovery (ISR) uranium mining operations in South Australia, south of the Big Lake project. Site 10 was specifically targeted to confirm the presence of interpreted palaeochannel sands and assess if this area showed evidence of the key ingredients of the mineralisation model shown below.

Requirements	AGE interpretation	Status
 Source rock	Granite Suite present on edge of Cooper Basin	✓
 Permeable sedimentary sequences	Targeting Eyre and Namba Formations	✓
 Hydrocarbon reductants (Kazak, Wyoming, Texas)	Cooper Basin - known oil and gas field	✓
 Migration of uranium bearing fluids	Seismic interpretation of paleochannels	AGE currently drill-testing (program commenced May 2024)
 Presence of uranium observed	TC Development / Oil and Gas Operators	U occurrences - 'sniffs' noted to date

Drilling at Site 10 was completed in August 2024 (refer ASX release 13 August 2024¹). Holes AC24-021 to 023 and hole 025 encountered significant thicknesses of correlatable interbedded oxidised and reduced sand units within the Namba Formation between 90 m to 130 m depth (**Figure 3 and 4**). In-field measurements with a calibrated² portable X-ray fluorescence analyser (XRF) also detected anomalous uranium grades within the Namba sands. Commercial laboratory⁴ assay results

² The Olympus DP- 4050 (S/N 550191) pXRF was calibrated on 7 February 2024 by Evident Australia using Alloy Certified Reference Material produced by Analytical Reference Material International (ARMI).

⁴ Bureau Veritas Australia employed standard Induced Coupling Plasma spectrometry on acid digested samples, following ISO 9001 Quality Management. Further details provided in Appendix I under Assay Quality.

validate the in-field results confirming this is the first time thicknesses of this size and grade have been reported from this region. Of note is drillhole AC24-022 where in-field XRF detected 5m @ 130ppm U whereas laboratory assay shows a significant grade thickness of **35m @ 117ppm U**. Alligator is currently planning follow-up drilling in this area. The comparison from in-field XRF to laboratory assay results for the uranium intersections is shown in the table below.

Hole ID	From (m)	To (m)	Thickness (m)	In-Field XRF Assay (U ppm)	Laboratory Assay (U ppm)
AC24-021	106	126	20	110	100
AC24-021	129	130	1	185	129
AC24-022	93	128	35 <i>(previously stated as a 5m intercept, AGE ASX Release 13 August 2024)</i>	130	117
AC24-023	104	109	5	45	47
AC24-025	108	118	10 m	120	138

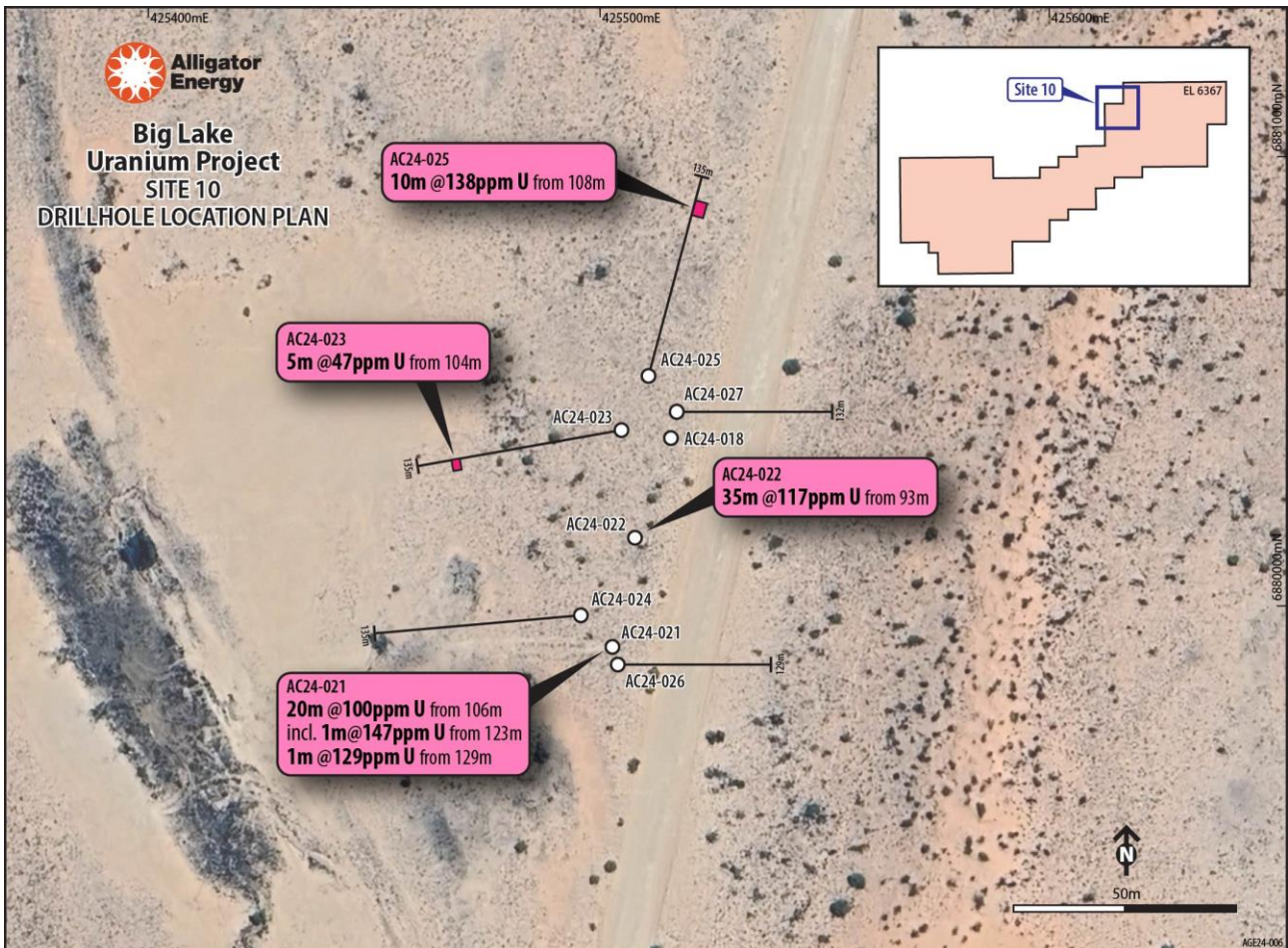


Figure 3: Drillhole location map (Site 10) showing uranium grades (ppm) and thicknesses from laboratory assay results.



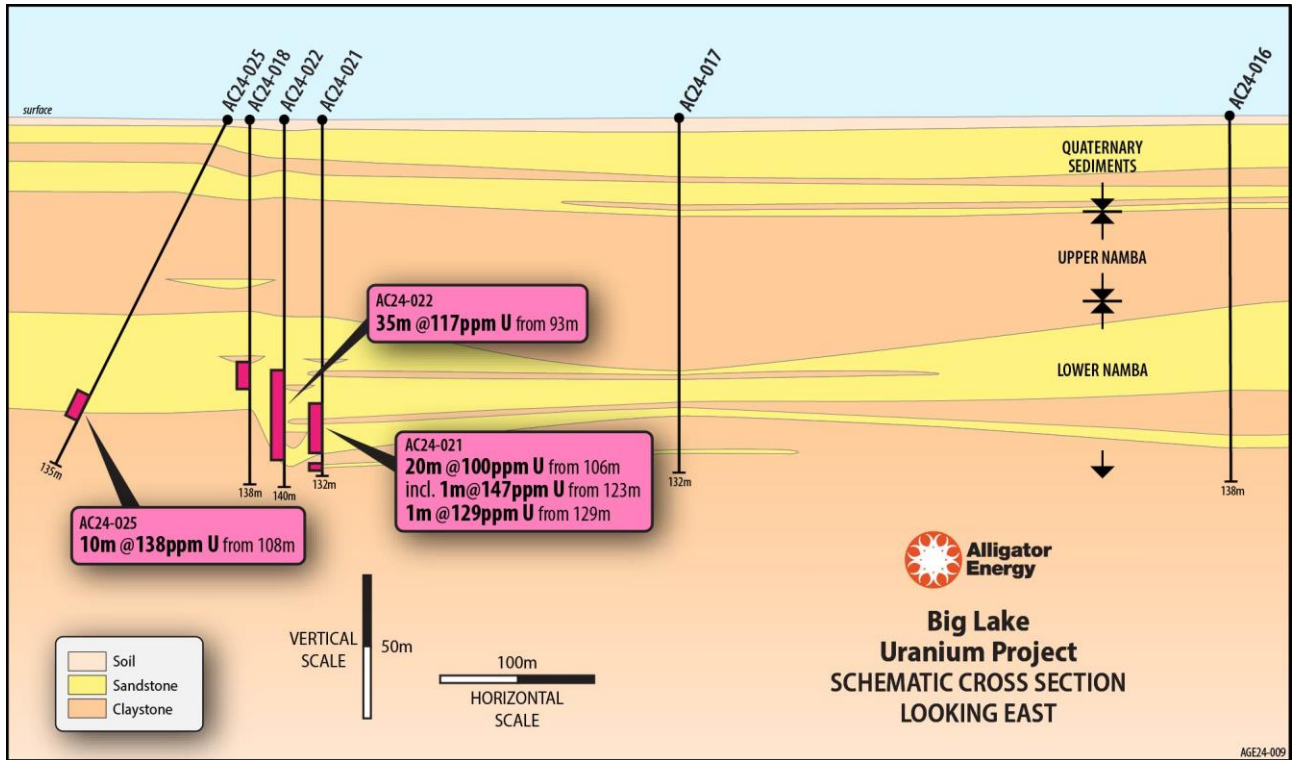


Figure 4: North-South orientated geological cross-section showing uranium grades (ppm) and thicknesses at depth. Note Hole 018 mineralisation was present but below significant levels (shown here to demonstrate continuity). Hole 023 not shown as is off section.

Next Steps

Based on the highly encouraging results from the inaugural drill program, a combined mud-rotary and aircore drilling program is being planned for the first quarter 2025. Key components include:

- Traditional Owner heritage site clearances to be undertaken in late 2024 to allow for the twinning of air core holes using a rotary mud drill rig and step-out drilling.
- Deployment of rotary-mud drilling to allow for acquisition of downhole geophysics and to test the Eyre Formation that underlies the Namba Formation up to 400 m below surface. These largely uncemented and semi-consolidated sediments of the Eyre Formation are a principal host for uranium mineralisation in the nearby Frome Embayment district.
- Additional stratigraphic drill-fences to continue regional mineralisation model-testing across the central tenure of EL 6367.

This released was authorised by Greg Hall, CEO and Managing Director.

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Forward Looking Statement

This announcement contains projections and forward-looking information that involve various risks and uncertainties regarding future events. Such forward-looking information can include without limitation statements based on current expectations involving a number of risks and uncertainties and are not guarantees of future performance of the Company. These risks and uncertainties could cause actual results and the Company's plans and objectives to differ materially from those expressed in the forward-looking information. Actual results and future events could differ materially from anticipated in such information. These and all subsequent written and oral forward-looking information are based on estimates and opinions of management on the dates they are made and expressly qualified in their entirety by this notice. The Company assumes no obligation to update forward-looking information should circumstances or management's estimates or opinions change.

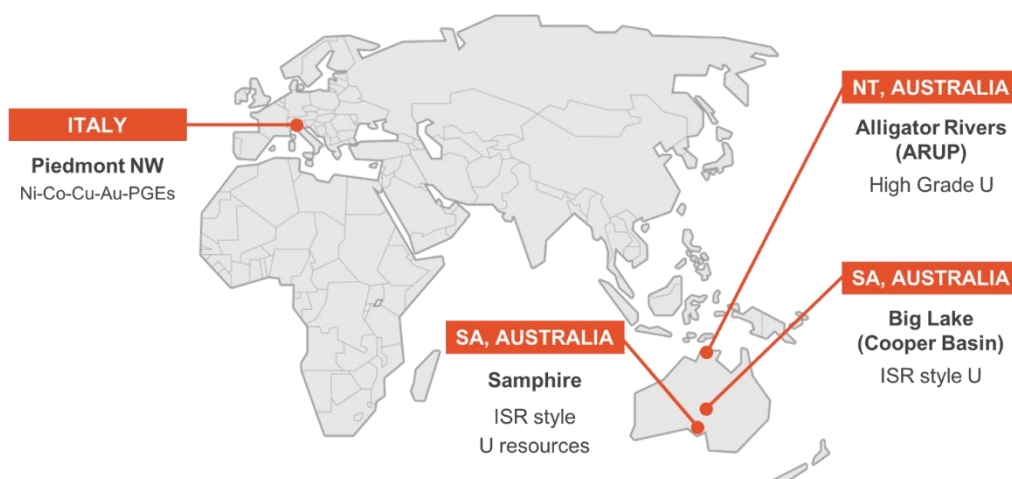
Competent Person's Statement

Information in this report is based exploration drilling results compiled by Dr Andrea Marsland-Smith who is a Member of the AusIMM. Dr Marsland-Smith is employed on a full-time basis with Alligator Energy as Chief Operating Officer, and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration (including 21 years in ISR uranium mining operations and technical work) and to the activity she 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. Dr Marsland-Smith consents to the inclusion in this release of the matters based on her information in the form and context in which it appears.

About Alligator Energy

Alligator Energy Ltd 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).

Projects



ASX: AGE

APPENDIX 1

JORC Code, 2012 Edition – Table 1 (Sections 1 & 2)

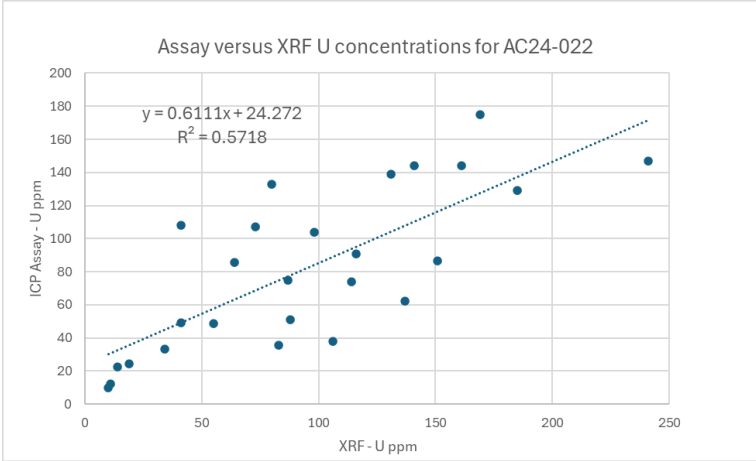
Section 1 – Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> • <i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i> • <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> • <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> • <i>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i> 	<ul style="list-style-type: none"> • Results reported in this announcement relate to aircore (AC) drilling during the 2024 exploration program on EL6367 at the Big Lake Uranium Project in the Lake Eyre/Cooper Basin region, South Australia. • Sampling of the aircore drilling program involved the following components: <ul style="list-style-type: none"> ○ Drilling sample returns are taken off the rig at 1 m intervals without any splitting. They are laid out in numerically ordered labelled bags to avoid any confusion over intervals. ○ Following geological inspection, representative and non-composited 0.5-1 kg portions are taken from the 1 m samples (above) where there is: a change in geological horizon, mineralisation, alteration assemblages or any other zone of interest. ○ Sampling is done over potential host sequences, with focus on the Namba Formation. ○ All samples are geologically logged and natural gamma radioactivity level is measured with a RS-230 BGO Super SPEC Gamma-Ray Spectrometer (May 2023). • Samples for assaying across the entire AC drilling program were shipped to the same laboratory under one batch. Laboratory sample preparation is described in the 'quality of assay data' section.
<i>Drilling techniques</i>	<ul style="list-style-type: none"> • <i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i> 	<ul style="list-style-type: none"> • Drilling was contracted to Wallis Drilling of Western Australia. Using a Mantis 200 Automated Aircore (AC), 27 holes were drilled across 5 sites (cross-sectional lines of drillholes placed 50 – 200 m apart), with an average depth of 150 m. • Drill hole collar locations were positioned using a Garmin GPS with an approximate X-Y tolerance of 3 to 5 m.
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> • <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i> 	<ul style="list-style-type: none"> • Sample recovery from the AC drilling is monitored during drilling with an assessment made on the volume and weight of material recovered relative to the drill interval. If AC sample recovery is poor, it is logged as such. This is systematically recorded in the logging database. • Cross-interval contamination is assessed regularly but it is not possible to eliminate from the AC drilling process. However, no significant contamination issues have been encountered in this program. • For this program no apparent relationship was observed between sample recovery and grade. No sample bias is expected.
<i>Logging</i>	<ul style="list-style-type: none"> • <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i> • <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> • <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> • Standard sample logging procedures are utilised, including logging codes for lithology, minerals, colour, weathering etc. • A chip tray sample is taken for all 1 m intervals. • All chip trays are photographed for digital archiving. • Average natural gamma ray activity is measured for each sample. The instrument was purchased in 2023, pre-calibrated from counts to instrument-independent decay rate ($\mu\text{Sv/hr}$). The conversion accounts for specific instrument crystal volume, sensitivity, and dead-time.

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Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality, and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> The AC drilling process does not generate core but sediment chips as returns. The chips are recovered at one-meter intervals via the cyclone – wet or dry. ~ 0.5-1 kg samples for laboratory analysis are extracted from the one-meter interval bulk return by random scoops. To ensure laboratory reliability, duplicates are taken at a minimum of every 25 samples.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	<ul style="list-style-type: none"> Concentrations of uranium presented in this update are based upon samples sent under a single batch for complete geochemical and elemental analyses by Bureau Veritas (BV), South Australia in September 2024. Assaying followed the standard processing sequence: <ul style="list-style-type: none"> Samples are pulverized to a maximum 3 mm grain size and then split to obtain separate aliquots. One aliquot with a minimum of 0.2 g for mixed acid digest with a mixture of nitric, perchloric and hydrofluoric acids. Induction Coupled Plasma Mass Spectrometry (ICP- MS) is then employed to detect concentrations of 42 elements (detection limits vary depending on the element). Another aliquot is prepared and fused with lithium metaborate at high temperature. ICP – MS is then employed to detect another ~ 30 elements, including rare earths (detection limits vary depending on the element). Bureau Veritas employs procedures in accordance with ISO 9001 Quality Management, including one in twenty samples analysed in duplicate. Of 174 samples assayed, 9 represented blind duplicates. Duplicates are within 20% of each other for 75% of the time. Intervals of interest (sands within the Namba Formation) sampled at 1 m intervals. Coefficient of determination for thickest intercepts Niton XRF uranium concentrations versus assay results are > 0.5 (shown here for AC24-021):

Criteria	JORC Code explanation	Commentary
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<p><i>Verification of sampling and assaying</i></p>	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> • Alligator’s field geologists are supervised by the Project Lead/Senior Geologist. • All field data is entered into excel spreadsheets (supported by look-up tables) at site and subsequently validated on import into the centralized Access database. • Hard copies of logging and sampling data are stored in the local office and electronic data is stored on the company server. • As an early exploration/part stratigraphic drilling program, twinning of results is not required. However, all new data will be compared against legacy drill datasets, Alligator’s previous aircore drill data, geophysical coverage etc, to check for a consistent picture, possible discrepancies in new and old data and anomalies – leading to an enhanced picture of local prospectivity.
<p><i>Location of data points</i></p>	<ul style="list-style-type: none"> • <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> • All coordinate information was collected using handheld GPS utilizing GDA 1994, Zone 54. While the spatial location is expected to be within 3 – 5 m, it is possible that the elevation can be as much as 10 m out with respect to the currently established geoid.
<p><i>Data spacing and distribution</i></p>	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i> • <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> • The AC drill lines (or fences) of three to ten drillholes were strategically placed within the Big Lake Project to: <ul style="list-style-type: none"> ○ Corroborate seismic/airborne electromagnetic (AEM) interpretations of potential mineralisation. bearing channels and host sequences (in this case, primarily the Namba Formation) ○ Test the quality and variability of potential host formation. ○ Potentially make intercepts into host formations with indicators of uranium, uranium transport or uranium deposition.

Criteria	JORC Code explanation	Commentary
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> Drill traverses were generally designed to be orthogonal to the predicted course of interpreted palaeochannels. However, this was impractical in many cases owing to: <ul style="list-style-type: none"> Access restrictions due to oil and gas infrastructure or to minimise environmental disturbance. Uncertainty of palaeochannel geometry at this early stage of exploration. Inherent ambiguity of datasets due to spatial resolution or penetration limitations (particularly for AEM data in conductive cover terrain).
<i>Sample security</i>	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Company geologists supervise all sampling and subsequent storage in field and transport to point of dispatch to the assay laboratory.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> As an inaugural drilling program audits or reviews of the sampling techniques were not undertaken.

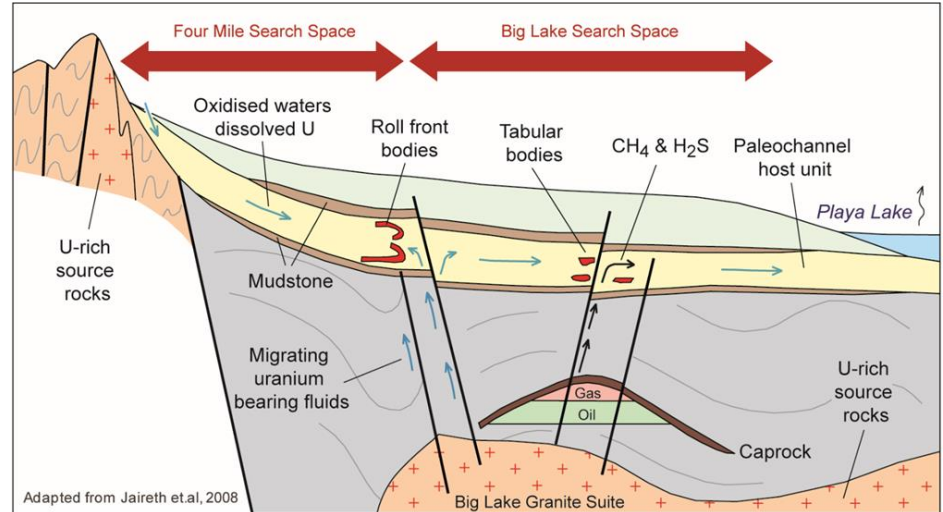
Section 2 – Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> The Big Lake Project (Tenement Holder - Big Lake Uranium Pty Ltd, project operated by Alligator Energy Ltd) is comprised of 7 exploration licences (EL 6367, EL 6847, EL 6848, EL 6849, EL 6902, EL 6903 and EL 6904) covering 6,422km². The initial licence - EL 6367 was granted on 22nd July 2019 for a two-year period and covers an area of 818 km². This licence was renewed for an additional three-years, expiring July 2024. A further 6 licences were added to the project in 2022 and 2023. EL6367 covers part of the Strzelecki regional reserve on its western side and parts of the Cooper Creek flood plain. The licence also covered parts of 6 historical exploration leases, ELs 4068, 4069, 4071, 4072, 4073 and 4076 previously held by TC Development Corporation Pty Ltd between 2008 and 2013. A Native Title Agreement for Mineral Exploration (NTMA) for Exploration between Big Lake Uranium Pty Ltd and Yandruwandha Yawarrawarrka Traditional Landowners (Aboriginal Corporation) RNTBC (INC 3840) has been instrumented and endorsed (RI 53024) on 2 August 2023. The agreement covers EL 6367, EL 6847, EL 6849, EL 6902, EL 6903 and EL 6904. Heritage sites in the area take the form of registered sites, which the company has full understanding of the location, and are excluded from exploration. Like any other jurisdiction, Alligator is required to protect heritage and archaeological sites via work area clearances on an as-needs basis. Alligator operates under an approved authorisation (Exploration Program for Environmental Protection and Rehabilitation) with the SA Government.
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Historic work across the tenement area (EL 6367) has predominantly focused on petroleum exploration which actively commenced on-ground exploration in the mid-1960s. To date 424 petroleum wells have been recorded within the licence boundary and active production is ongoing with processing taking place at SANTOS' nearby Moomba facility. Petroleum drilling across the tenement has provided valuable uranium exploration data through gamma logs which are valuable for the construction of simplified stratigraphic logging, however the primary focus of these holes lies much deeper than economic uranium exploration targets. Petroleum drilling in the district typically targets stratigraphic horizons of the Eromanga Basin approximately 1300m deep and Cooper Basin approximately 3000m deep.

Criteria	JORC Code explanation	Commentary								
		<ul style="list-style-type: none"> Four 3D seismic surveys overlap parts of the licence giving almost total coverage. Seismic Survey (Year conducted) <table border="0"> <tr> <td>Moomba Big Lake 3D</td> <td>(1997)</td> </tr> <tr> <td>Barina-Farina 3D</td> <td>(1998)</td> </tr> <tr> <td>Caladan-Daralingie 3D</td> <td>(2001)</td> </tr> <tr> <td>Greater Strzelecki 3D</td> <td>(2001)</td> </tr> </table> Over 1000 2D seismic profiles have been conducted across the exploration licence over the past 50 years. Quality of the 2D data varies with vintage, with those being shot from the mid 90's onwards generally the best datasets for geological interpretation. In 2019 the SA government began reprocessing open file 2D seismic to generate pre-stack time and depth migrated datasets for the Cooper Basin 2D cubed programme. 3855 lines have currently been reprocessed, 205 of which are located within the Big Lake Project. This reprocessed data provides a filtered full-offset final migration that enhances the data lower in the seismic profile, providing insights to possible fluid migration paths beneath, and into, the stratigraphy targeted by AGE. Aside from Petroleum exploration only modest mineral exploration has been conducted within the licence. Uranium exploration was conducted by TC Development Corporation Pty Ltd who held 6 licences (EL4068, EL4069, EL4071, EL4072, EL4073 & EL4076) overlapping EL6367 amongst others in the region. TC Development Corporation Pty Ltd held the licences between 2008 and 2013, with active on-ground exploration conducted during 2008 and 2009. On-ground exploration by TC Development consisted primarily of rotary mud drilling of 148 holes totalling 20,584 m. These holes concentrated around historic gamma anomalies identified in petroleum well logs. Hole depths range from 60 to 290 m depth and average 140 m targeting the Eyre Formation proximal to hydrocarbon domes. Gamma logs and lithology was recorded for all holes with 3687 interval samples analysed for geochemistry through XRF by Genalysis Labs WA. 	Moomba Big Lake 3D	(1997)	Barina-Farina 3D	(1998)	Caladan-Daralingie 3D	(2001)	Greater Strzelecki 3D	(2001)
Moomba Big Lake 3D	(1997)									
Barina-Farina 3D	(1998)									
Caladan-Daralingie 3D	(2001)									
Greater Strzelecki 3D	(2001)									

Criteria	JORC Code explanation	Commentary
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Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Big Lake exploration project lies on the eastern edge of the Cooper – Eromanga basins between the Patchawarra and Tenappera Troughs. The basins have a long history of oil and gas extraction and the uranium occurrence model follows analogues of occurrences above hydrocarbon fields in New Mexico and Texas in the United States of America and those of Kazakhstan. REDOX-controlled ‘roll front’ uranium mineralisation is being targeted by Alligator within the sedimentary Tertiary Namba and Eyre Formations and Cretaceous Winton Formation. The potential uranium source for the BLU Project is interpreted to be from weathering/leaching of the underlying uranium enriched Big Lake Granite Suite. The suite was recognised initially from regional heat flow maps of Australia and elevated geothermal gradients in the Cooper Basin petroleum wells. They were subsequently recognised in seismic data and later intersected in petroleum wells. Uranium from this potential source is interpreted to migrate via oxidised groundwater into permeable units and paleochannels within the basin. Hydrocarbons generated in the lower part of the basin are known to have transgressed stratigraphy and leaked into the upper parts providing the reductant for uranium to precipitate from the groundwater (see Figure below). Numerous regional petroleum wells show traces of uranium throughout the sedimentary sequences of the basin, confirming the potential for the mineralisation model described above, with recently acquired airborne electromagnetics and reprocessed seismic data demonstrating continuity and volume potential.
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Drill hole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar 	<ul style="list-style-type: none"> Refer Table 1 Appendix 2 of this release.
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Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> ○ dip and azimuth of the hole ○ down hole length and interception depth ○ hole length. ● If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	
Data aggregation methods	<ul style="list-style-type: none"> ● In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. ● Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. ● The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> ● An average of the uranium grade is reported over the specific intervals cited in the text which was deemed significantly anomalous.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> ● These relationships are particularly important in the reporting of Exploration Results. ● If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. ● If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> ● Uranium mineralisation was intersected over tens of metres in several holes at Site 10. The intercepts have not been corrected for apparent dip. It is anticipated that with near-vertical drilling into basinal flat-lying sequences, the intercepts are within 10% of true thicknesses. ● While the holes show similarities in host sequence (including oxidation state), uranium concentrations and target depth, it cannot be assumed that the intercepts are continuous nor make up a single mineralised system.
Diagrams	<ul style="list-style-type: none"> ● Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	<ul style="list-style-type: none"> ● See figures in release. ● Appropriate scales and orientations are applied to all diagrams.
Balanced reporting	<ul style="list-style-type: none"> ● Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> ● Exploration results are discussed in the report and shown in figures.

Criteria	JORC Code explanation	Commentary
Other substantive exploration data	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	<ul style="list-style-type: none"> See release details. All meaningful and material data reported.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> Assess and incorporate 2024 results into current exploration model. Integration of new drilling results across the entire program into the existing basin model interpretation. Further investigation on the application of 2D and 3D seismic for the definition of paleochannels in other regions of AGE's Big Lake exploration licences. Mapping the distribution and thickness of 'granite wash plays' from historic and reprocessed seismic data. Isopach mapping of historic oil and gas logs across the licence to define variations in Namba and Eyre Formation thicknesses. Further investigation on the application of passive seismic for the definition of paleochannels. Continue capturing the relevant data from historic petroleum wells and mineral exploration drillholes. Continued data amalgamation and historical research to define new targets in near surface horizons. Follow-up drilling to gain better understanding on the direction and magnitude of the intercepts at Site 10. This is subject to additional heritage clearances (scheduled for late October/November 2024) and Exploration Program for Environmental Protection and Rehabilitation (EPEPR) approval through the South Australian Department of Energy and Mining.

APPENDIX 2

In accordance with ASX Listing Rule 5.7.2 the Company provides the following information.

Table 1: Estimated grades (reported as an average U ppm over an interval) were determined by Induced Coupling Plasma Mass-Spectrometry (ICP) on acid-digested samples by Bureau Veritas Australia, September 2024 (details provided in Appendix 1).

Note mineralised intercepts reported for angled holes are for apparent thickness. The uranium mineralisation is stratiform and therefore assumed to be horizontal.

Hole ID	Easting (GDA94, Z54)	Northing (GDA94, Z54)	RL	Azimuth	Dip	Hole Depth (m)	Depth From (m)	Depth To (m)	Thickness (m)	Av. U (ppm)
AC24-016	425351	6879415	35	0	-90	138	No significant anomalous intersections			
AC24-017	425456	6879765	32	0	-90	132	No significant anomalous intersections			
AC24-018	425516	6880037	34	0	-90	138	No significant anomalous intersections			
AC24-021	425503	6879991	32	0	-90	132	106	126	20	100
AC24-021							129	130	1	129
AC24-022	425508	6880015	33	0	-90	140	93	128	35	117
AC24-023	425505	6880039	34	260	-70	135	104	109	5	47
AC24-024	425496	6879998	31	265	-70	135	No significant anomalous intersections			
AC24-025	425511	6880051	34	15	-70	135	108	118	10	138
AC24-026	425504	6879987	32.5	90	-70	129	No significant anomalous intersections			
AC24-027	425517	6880043	34.2	92	-70	132	No significant anomalous intersections			