



**Alligator  
Energy**

## **INVESTOR UPDATE**

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**OCTOBER  
2021**



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# Corporate

# Alligator Energy – Corporate Strategy

***Uranium focussed project development and exploration group with clear pathways for approval and development.***

- Advancing Samphire Uranium Project through resource enhancement, evaluation, approvals and pre-development into production
- Identify and test highly prospective exploration targets in its ARUP & Big Lake Uranium Assets
- Value add to its Ni Co Cu Piedmont Project in northern Italy through exploring strategic partnership investment
- Continue to actively evaluate acquisition opportunities of further advanced uranium assets



**Targeting multi-jurisdictional resource and exploration projects**

- *Alligator has formed a strategic relationship with **Traxys North America**, the U.S. arm of global commodities trading group Traxys*
- *Traxys uranium team will provide uranium marketing services for future uranium production, long term offtake contracting, project development financing and assist in uranium project acquisition opportunities<sup>1\*</sup>*

**Combined now with Traxys, Alligator has one of the most experienced uranium Management, Advisory and Board teams on the ASX.**



# Alligator Energy – Company Snapshot

## Leading Uranium Board Experience

- Founding MD Toro Energy achieving approval of WA's first uranium mine
- MD of Extract Resources during discovery and PFS of the Husab Uranium Mine in Namibia - sold for US\$2.2B
- Management roles WMC Olympic Dam, ERA Ranger and Jabiluka Uranium
- Uranium and nuclear fuels marketing – Uranium project financing

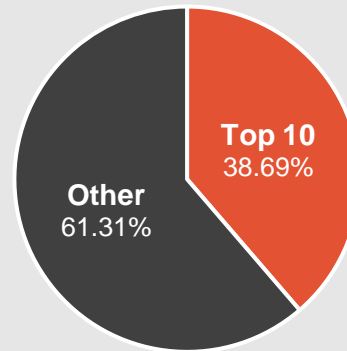
## Capital Structure (as at 18/10/21)

Share Price	\$0.073
Ordinary Shares	2,970.2M
Listed Options	119.4M
Performance Shares & unlisted options	82.7M
Cash (approx.)	\$21M
Market Cap	\$216.8M

## 12 month share price (as at 18/10/21)



## Top 10 shareholders (by parent company as at 8 July 2021)



## Recent capital raises to advance work on key projects, including:

- \$11 million placement in July @2.7c
- \$11 million placement, attaching option in October @6.25c
- Loyalty (Bonus) option to eligible shareholders as at 29 October record date @4.5c

# Alligator Energy and Traxys Strategic Partnership

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***Development of Traxys strategic relationship could accelerate Alligator's transition from a junior explorer and development company into a bona fide producer with a global supply profile and a matching market cap.***

- Support to accelerate development and enhancement of the Samphire Uranium Project and contract sales book
- Working with Alligator on continued evaluation of external uranium resource acquisition opportunities to develop a future supply pipeline
- Potential for U3O8 inventory finance and logistics support
- Consideration of project development finance up to US\$15 million to support project start up
- Leveraging Traxys' market intelligence, financing strength and customer relationships with nuclear utility uranium buyers



- ✓ *Long-standing metals, minerals and alloys merchant*
- ✓ *>US\$ 6 billion annual turnover*
- ✓ *Top 10 supplier of uranium to the world market covering the Americas, Europe, Australia and Asia*
- ✓ *Transacting 15 million lbs U3O8 annually*

**Traxys Partnership provides substantial Shareholder value**

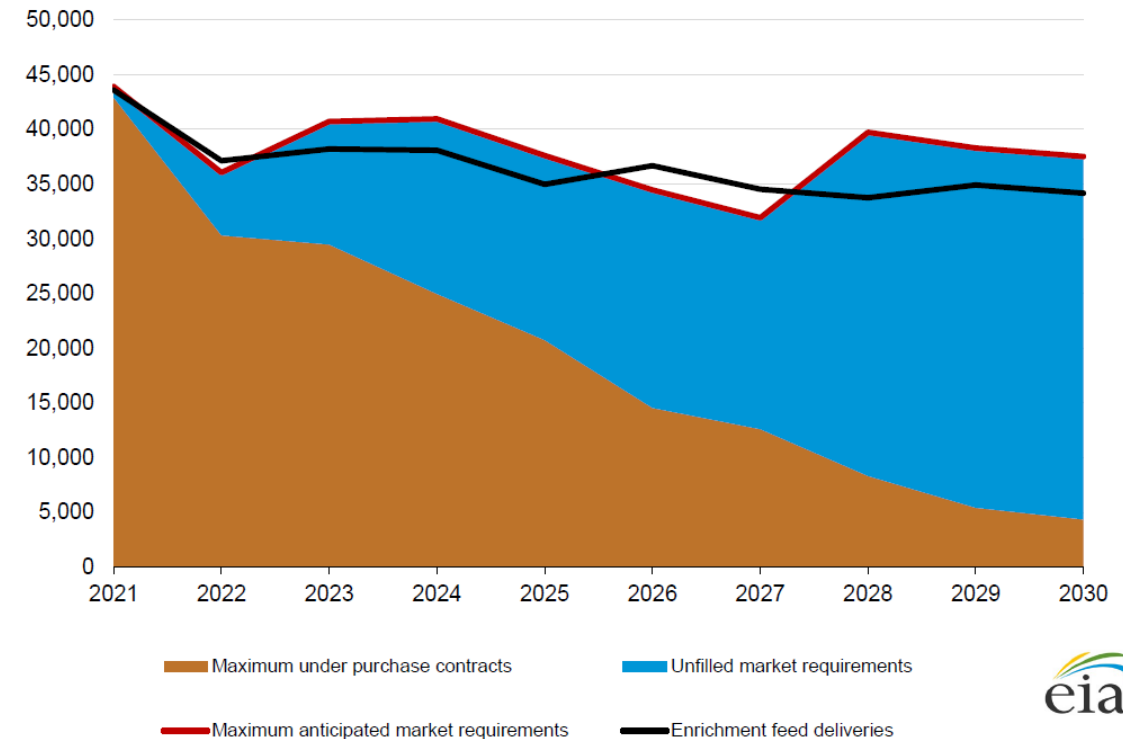
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# Uranium Market

# Uranium Market

- High level of uncovered uranium demand within nuclear utilities
  - ~50% uncovered in US from 2025
  - ~50% uncovered in EU from 2026
- Still a significant pipeline of new reactor construction with SMR's entering the fray also – **~10% increase in nuclear power in 5 years**
- 55 large reactors under construction globally (18 in China)\*
- 100's more planned and proposed\*
- Across 9 countries there are\*\*
  - 4 SMR's operating
  - 3 SMR's under construction
  - 14 SMR's well developed nearing deployment
- Significant policy changes within USA and EU which now define nuclear as a low carbon electricity source
- Significant fund physical uranium buying, with additions from Producers and developers

**Max anticipated uranium requirements of US nuclear power reactors, 2021-2030**



Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2020)

\* Source: WNA, World Nuclear Power Reactors (May 2021)

\*\* WNA, Small Nuclear Reactors (Oct 2020)



# Uranium Market

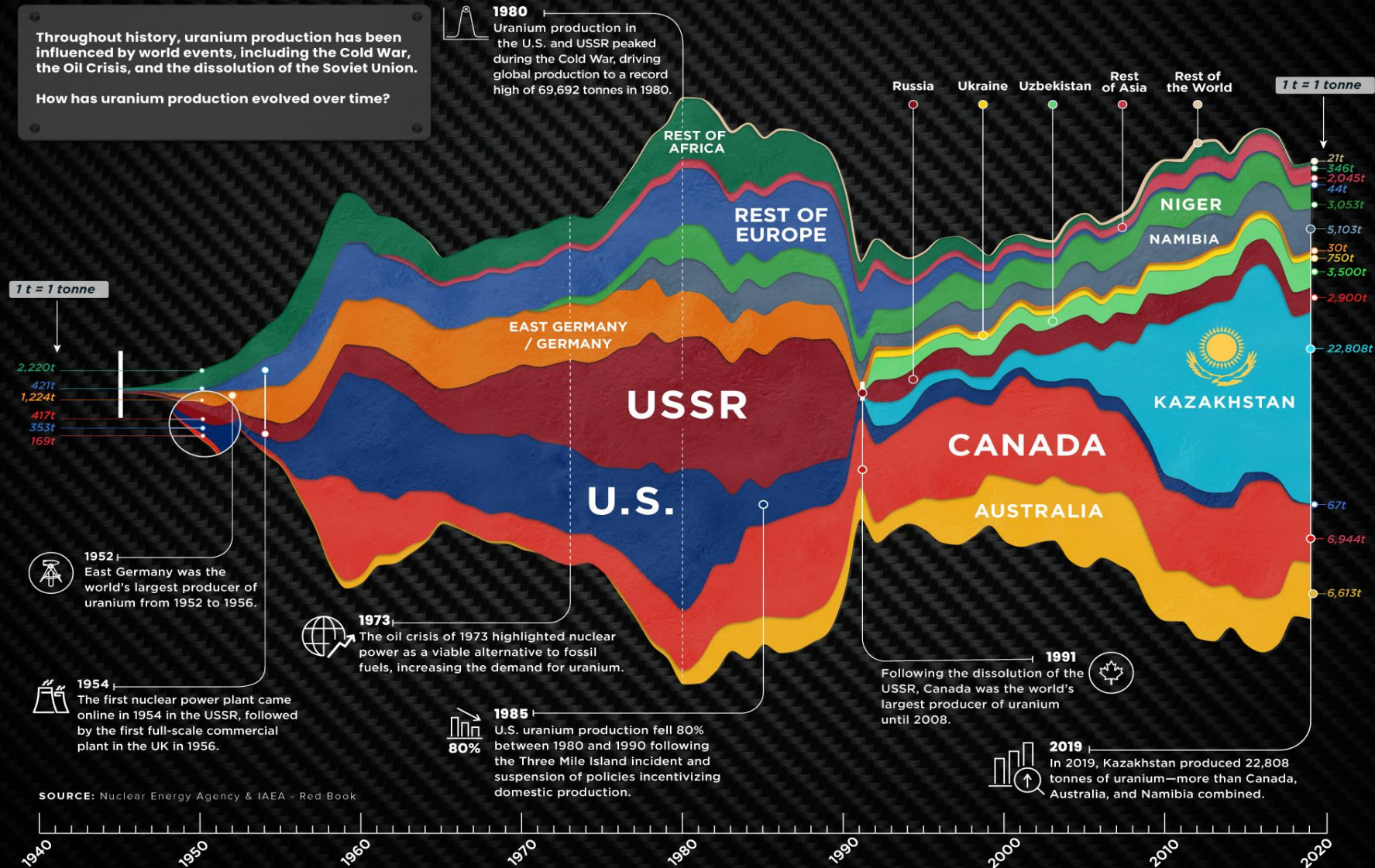
Shifting uranium supply based on global events, supply and demand, changing political scenarios

Contraction points show effects of significant events

Expansion points related to strong nuclear growth and uranium prices

Source: Nuclear Energy Agency, IAEA Red Book, Visual Capitalist

## 70 YEARS OF URANIUM PRODUCTION VISUALIZED

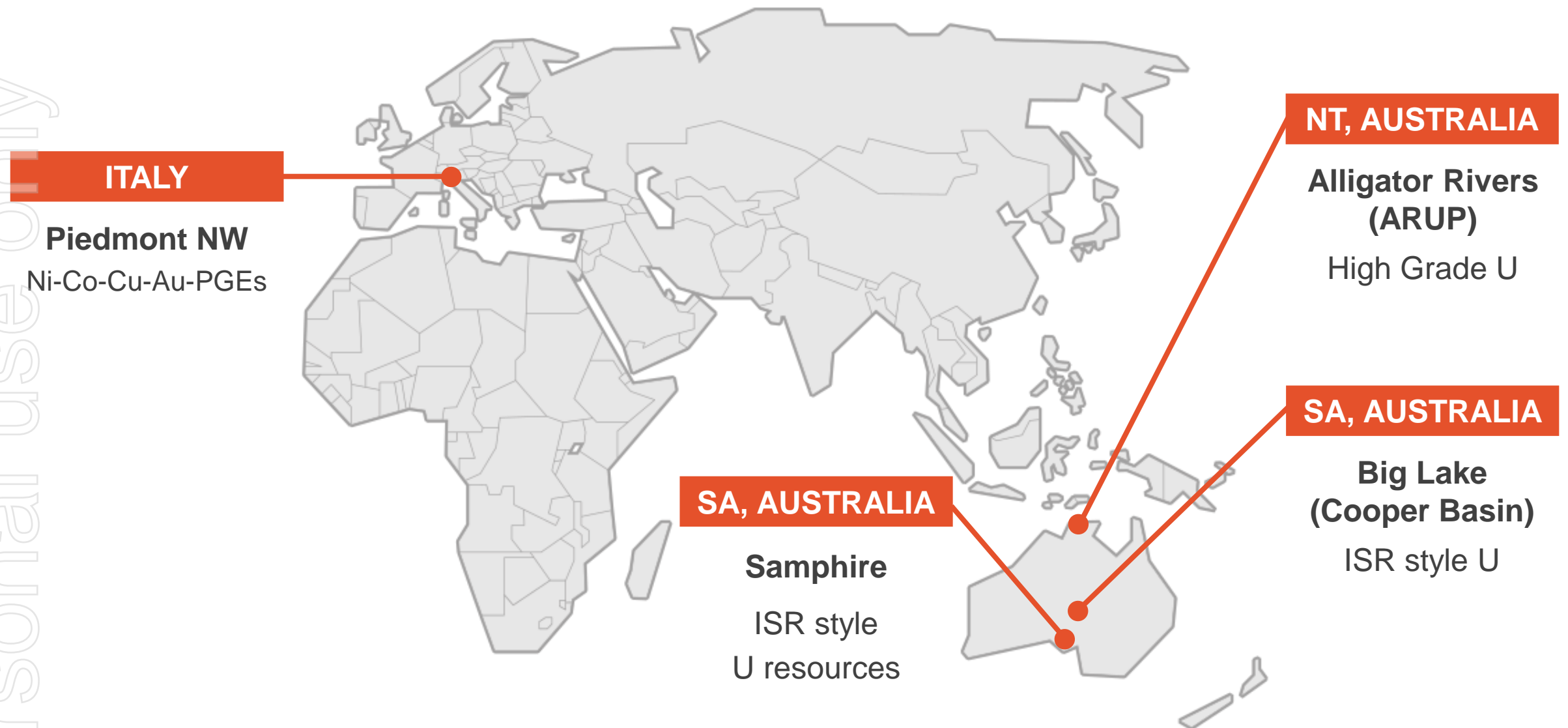




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# Projects

# Alligator Energy – Project Locations



# Alligator Energy – Portfolio Status

Project	Highlights
Samphire Uranium Project, South Australia	<ul style="list-style-type: none"> <li>Contains <b>47Mlb inferred uranium resources</b> in two deposits. <sup>*2</sup></li> <li>JORC2012 compliant <b>Blackbush Resource</b> is 64.5 million tonnes at a grade of 230ppm eU3O8 containing <b>32.7Mlb eU3O8</b> at a 100ppm cut-off grade, <b>with a higher-grade core amenable to ISR extraction.</b> <sup>2</sup></li> <li>JORC2004 <b>Plumbush Resource 21.8 million tonnes at grade of 292ppm eU3O8, containing 13.9Mlb eU3O8</b> of mineralisation at a 100ppm cut-off grade. <sup>2</sup></li> <li>Desktop study confirmed amenability to ISR mining and supported planned upcoming 2021 drilling program, ANSTO updated met testing, targeting Scoping Study by Q1 2022.</li> <li><b>Significant upside through potential resource enhancement, mineralisation extension, further discoveries, improved modern extraction and recovery techniques, commence early studies for approvals.</b> <sup>3</sup></li> </ul>
Alligator Rivers Uranium Province (ARUP), Northern Territory	<ul style="list-style-type: none"> <li>Contains <b>multiple uranium targets</b> in a well-defined <b>high grade regional uranium bearing zone</b>, which includes the <b>Caramal uranium resource 6.5 Mlbs U3O8 @ 0.31% (3,100ppm)</b><sup>4</sup></li> <li>Prospective Nabarlek North tenements have recently been granted giving Alligator in <b>excess of 1,150km2 of active tenure</b> in Australia's premier Uranium district <sup>4</sup> adjacent to the high grade U40 Uranium Copper Gold Prospect</li> <li><b>Preparations underway for IP survey and ground gravity followed by drilling in 2022</b></li> </ul>
Big Lake Uranium Prospect, South Australia	<ul style="list-style-type: none"> <li>EM survey conducted <b>targeting potential paleochannels for new low cost ISR style deposits</b> in the Cooper Basin</li> <li><b>Pending outcome of geophysics, drilling planned for H1 2022.</b> <sup>5</sup></li> </ul>
Piedmont Project, Northern Italy	<ul style="list-style-type: none"> <li>Contains multiple <b>historic Ni Co Cu mines</b></li> <li>Ground truthing and sampling has <b>confirmed the high-grade Ni tenor of the region</b></li> <li>17 occurrences of nickel &gt; 0.5% in a region of interest extending some <b>30kms in length, by 2 to 3kms wide.</b> <sup>6</sup></li> <li><b>Interested potential strategic partner visiting site Oct 2021, prep for geophysics program underway</b></li> </ul>



\*Refer ASX release 11 June 2020 - <https://www.asx.com.au/asxpdf/20200611/pdf/44jk4s3r8rgc10.pdf> including the Cautionary Statement in relation to the 2004 JORC complaint Resource  
Refer to numbered references on slide at end of presentation (Slide 26)



# Alligator Energy – Global Resources Summary

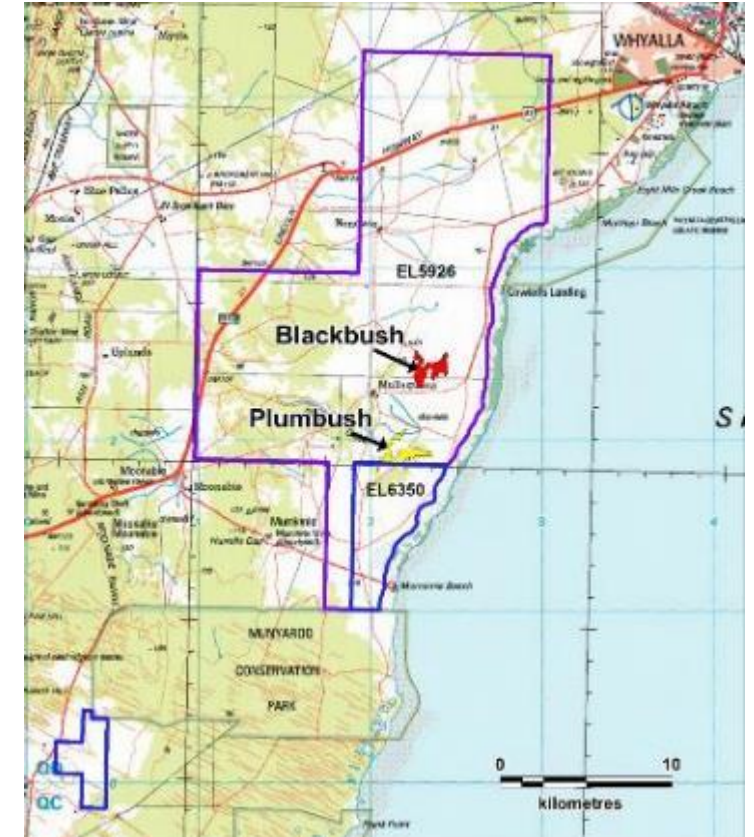
Resource*2	Project	Status	JORC code	Location	Mineralisation (Mt)	Average grade ppm eU <sub>3</sub> O <sub>8</sub>	Estimated contained U <sub>3</sub> O <sub>8</sub> (t)	Size (Mlb)
Blackbush	Samphire	Inferred	2012	SA	64.5	230	14,850 t	32.7
Plumbush	Samphire	Inferred	2004	SA	30.2	226	6,745 t	13.9
These are Inferred Resource estimates. The cut-off grade applied is 100ppm eU <sub>3</sub> O <sub>8</sub> over a minimum intercept thickness of 0.40m. Numeric discrepancies arise from rounding of underlying figures. For full details and original release refer to reference 9.								
Caramal	TCC	Inferred	2004	NT	0.94	3100	2,950 t	6.5
These are Inferred Resource estimates. The cut-off grades applied are a low cut-off 1000ppm and top cut-off of 14,000ppm U <sub>3</sub> O <sub>8</sub> over a minimum intercept thickness of 1m. Numeric discrepancies arise from rounding of underlying figures. For full details and original release refer to reference 4.								
<b>TOTAL</b>					<b>95.64</b>	<b>--</b>	<b>24,545 t</b>	<b>53.1</b>

\*Refer ASX release 11 June 2020 - <https://www.asx.com.au/asxpdf/20200611/pdf/44jk4s3r8rgc10.pdf> including the Cautionary Statement in relation to the 2004 JORC complaint Resource  
Refer to numbered references on slide at end of presentation (Slide 26)

# Samphire Uranium Project, SA

- Acquisition of Samphire Project completed Oct 2020 – 100% AGE owned
- Desktop Study was undertaken to review historical information, potential development routes and plan future work
- Modern ground magnetics and passive seismic trial undertaken
- Drill program commencing November 2021 for Blackbush resource infill drilling, resource extension testing, and new core samples for metallurgical and recovery testing
- Acquisition of adjacent tenement to south of Plumbush deposit contains historic drilling and uranium intercepts.<sup>7</sup>
- Acquisition of adjacent tenement to the south of the Plumbush deposit contains historic drilling and uranium intercepts.

Resource*2	Project	Status	JORC code	Location	Size Mlb
Blackbush	Samphire	Inferred	2012	SA	32.7
Plumbush	Samphire	Inferred	2004	SA	13.9



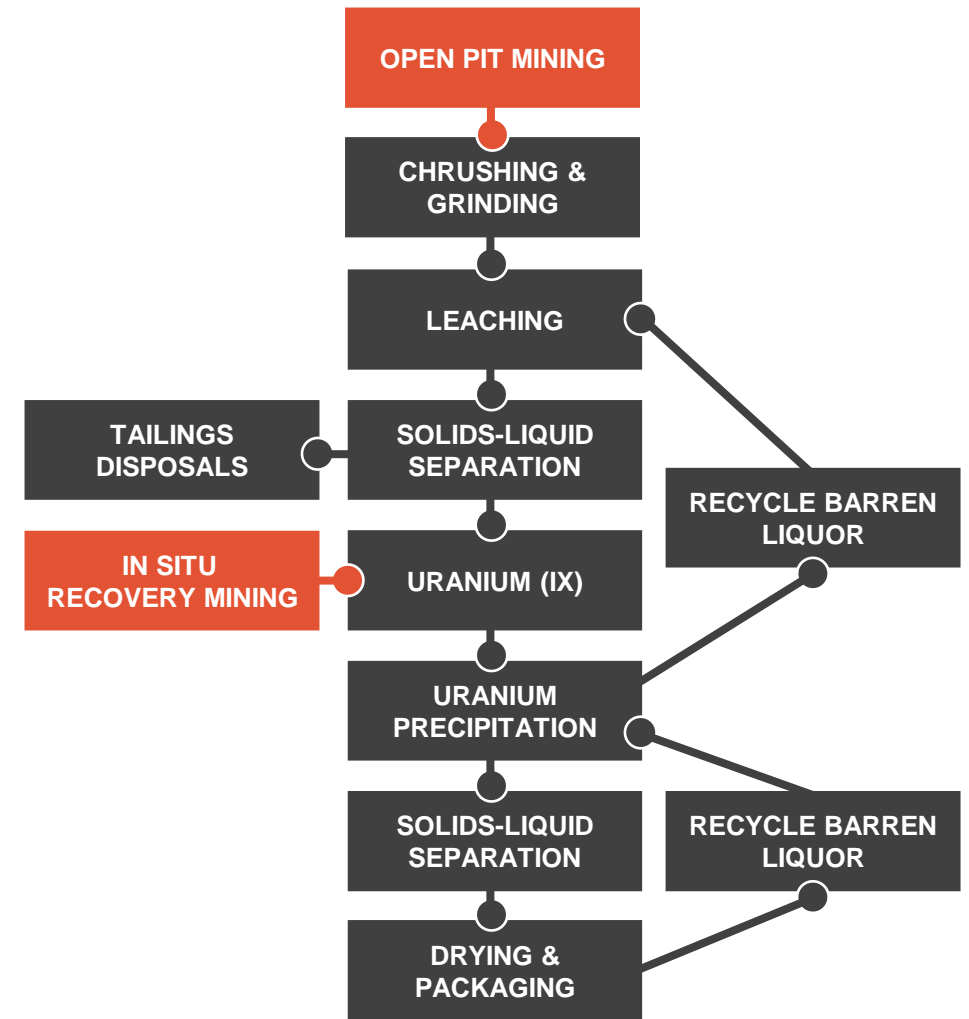
## 2021 / 2022 Targets

1. Drilling to enhance and improve confidence of Blackbush resource
2. Undertake updated ANSTO testing for uranium recovery
3. Scoping Study during Q1 2022 – further drilling and baseline studies commence

# Samphire Desktop Study

***Experience uranium ISR consulting group Inception Consulting Engineers undertook a Processing Review, which highlighted the following opportunities:***

- South Australian jurisdiction – uranium familiarity in regulator and community, existing uranium logistics
- Project is highly amenable to In-Situ Recovery (ISR) production, with updated ANSTO recovery testwork planned
- An intermediate product could be produced for toll processing offsite reducing capital costs in any future development
- An updated and improved flowsheet for uranium extraction/processing was established based on the consistent higher-grade portion of Blackbush. Initial OPEX and CAPEX cost estimates are competitive with similar ISR operations – to be confirmed and disclosed as part of the planned 2021 resource and Scoping Study work





# Samphire – High Resolution Geophysics

## *High-resolution ground magnetics over the Blackbush resource completed April 2021*

- Results demonstrate a marked improvement on existing magnetic data resolution providing additional insight and clarity into basement geological features and structural controls
- Ground magnetics results published 4 June - ASX
- Passive seismic (a beneficial survey technique to refine the target Kanaka bed palaeochannels which host mineralisation) undertaken showing uranium expansion opportunity
- Improved geophysics surveys will allow for more targeted drill planning

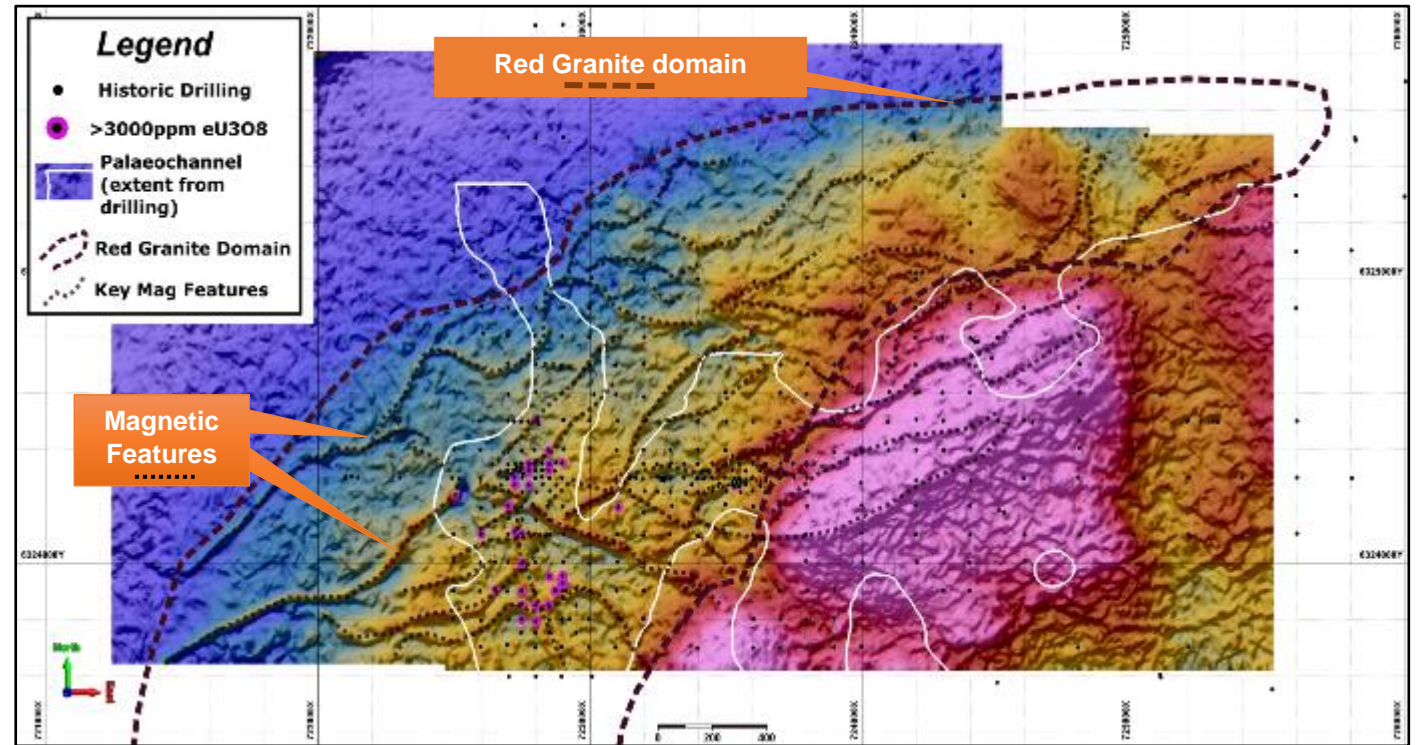


Figure 1: New high-resolution ground TMI Magnetics with hole intersects >3000ppm eU3O8 highlighted and northeast-southwest Mag zone.

# Samphire – 2021 Drilling Plan

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- Extensive review of historic exploration (790 holes for >58,000m) confirmed quality of existing work focused on the Blackbush and Plumbush resources
- Previous Blackbush higher grade zone drilling detailed impressive results, including hole MRM881 which intercepted **15.9 metres at 0.3% eU3O8 (3,000 ppm) including 4.5 metres at 1.02% eU3O8 (10,200 ppm)** <sup>3</sup>
- Indigenous cultural heritage clearance over initial drilling area completed
- **2021 Drilling will target 3 distinct tasks and opportunities:**
  - Up to 14 sonic cored holes at Blackbush deposit to obtain geochemical assays to confirm / integrate with historical logging information, plus obtain samples for updated test work by ANSTO on uranium recovery using modern high chloride tolerant resins and detailed ion exchange evaluation
  - ~20 x ~100m rotary mud holes to test resource upgrade opportunities within the existing Blackbush deposit
  - ~20 x ~100m rotary mud holes to test extensional targets adjacent Blackbush

## **Blackbush High Grade Core – potential remains to:**

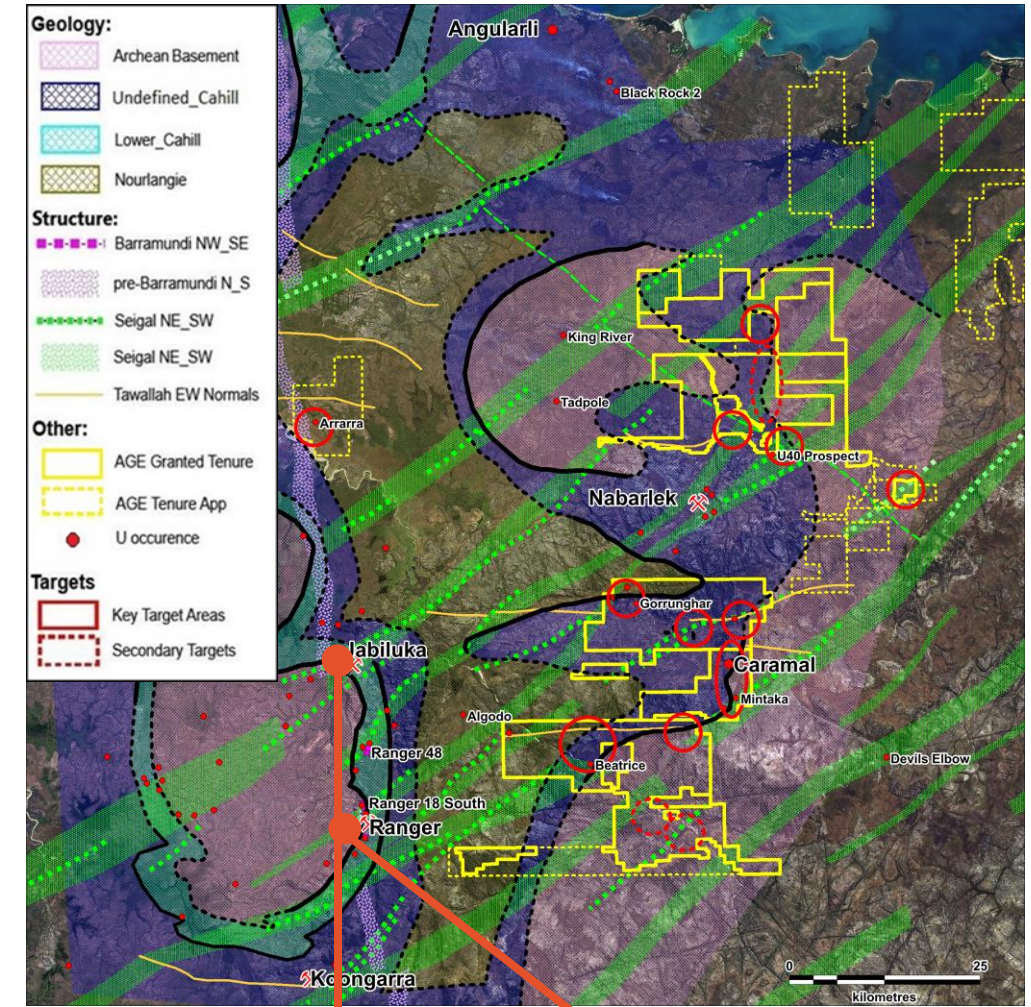
- *Infill historic drilling in the high grade core and enhance the existing resource*
- *Target identification of further high grade mineralisation within the known resource over potential basement source structures*



# Alligator Rivers Uranium Province (ARUP), NT

- AGE's ARUP region (100% owned) in West Arnhem Land contains multiple uranium targets in a well-defined regional uranium bearing zone including the Caramal Resource **6.5 Mlbs U3O8 @ 0.31% (3,100ppm)**<sup>4</sup>
- Recent comprehensive re-evaluation of the regional and local geology - enhanced understanding of stratigraphic and structural relationships
- Broad zone highlighted Beatrice Project, through Tin Camp Creek and into the Nabarlek North project area as high priority for further work.
  - Along this trend, 8 areas for immediate assessment were highlighted
  - 6 additional target areas within the Alligator licences
- Agreement completed with Traditional Owners over the highly prospective Nabarlek North tenement package to **increase AGE's exploration footprint by 80%**
  - 11 km to the north of the historic Nabarlek uranium mine (**24 Mlbs @ 1.84% U3O8**), and 200 metres from the high grade U40 prospect (**includes 6.3m at 7.23% (72,300ppm) U3O8**)<sup>8</sup>
  - Reduced thickness of cover sequence – more effective exploration
- Onground prep work underway for IP survey, ground gravity, to be followed by drilling in 2022

ARUP – underlying geology – actual and interpreted



In close proximity to key Uranium deposits

JABILUKA

RANGER

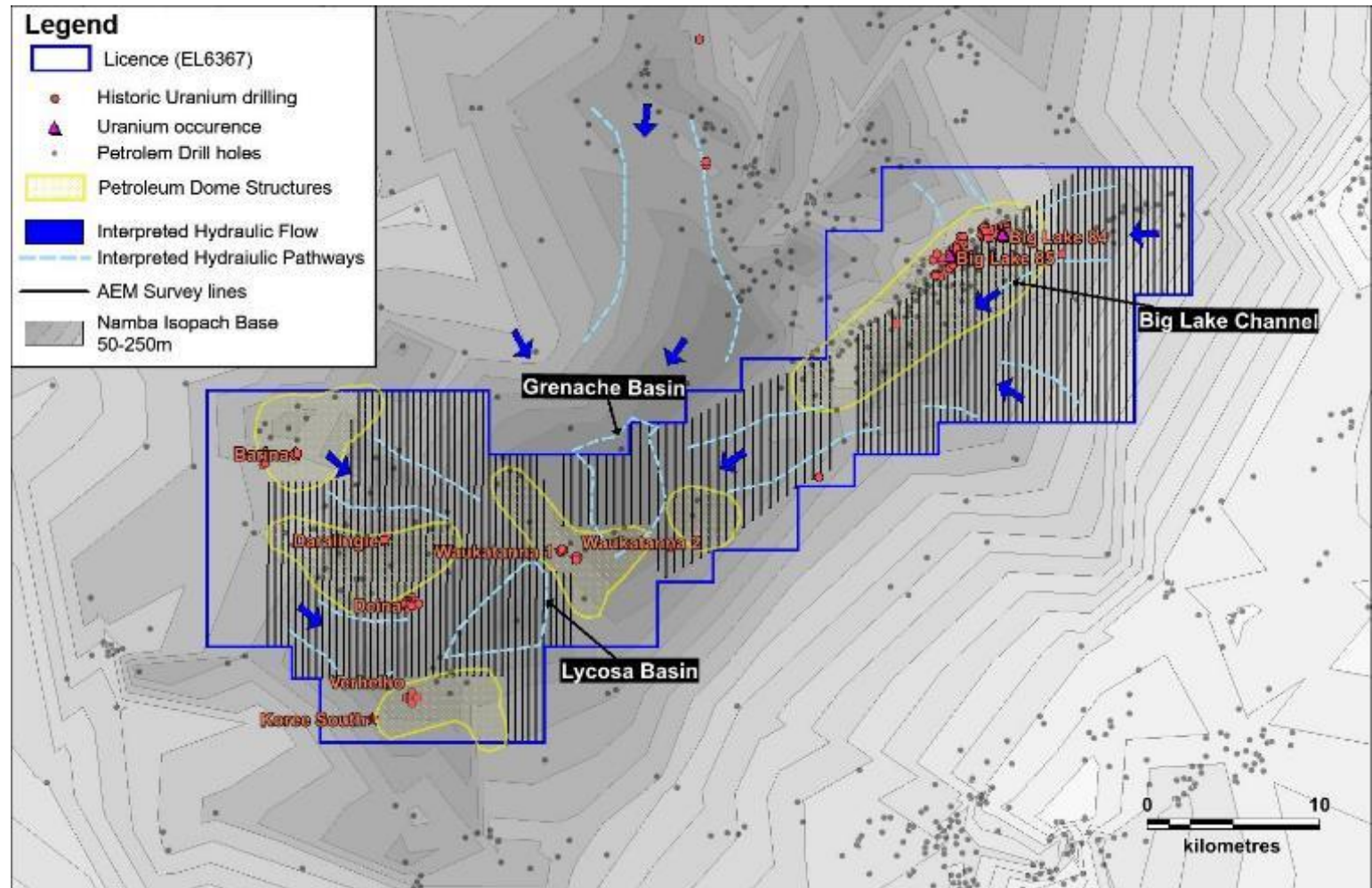


# Big Lake Uranium - Airborne EM Survey

***Alligator can acquire 100% of the Big Lake Uranium Project in Copper Basin, exploring for ISR uranium.***

***Airborne EM survey  
completed May 2021***

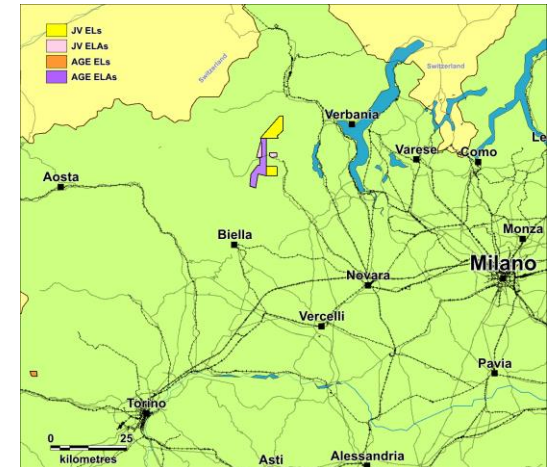
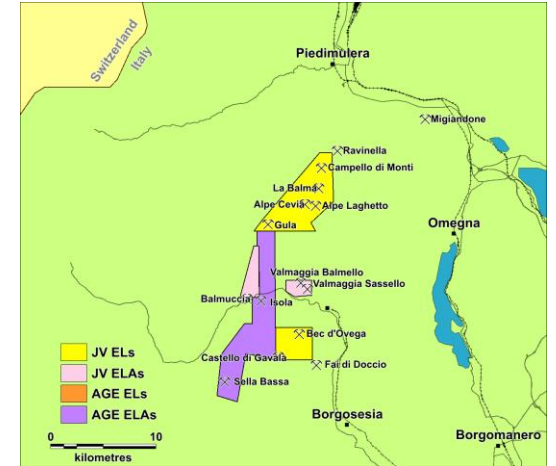
- Shallow sandstone hosted ISR style setting is amenable to rapid and low-cost exploration and exploitation.
- The BLU region demonstrates geological analogies to existing world class ISR fields including Kazakhstan, Texas and Wyoming
- Results currently being evaluated with a view to interpreting any paleochannel systems which may have accumulated uranium in sediments
- Subject to this evaluation, an initial drilling program is planned for H1 2022



**Base of Namba formation Isopach with proposed AEM survey lines over interpreted Hydraulic pathways, Petroleum Dome structures and Historic drilling**

# Piedmont Ni Co Cu Au Project, northern Italy

- Region of interest extends some 30kms in length, by 2 to 3kms wide, and contains multiple historic Ni Co Cu mines – AGE farming into 3 licenses, holds 100% of 3 others
- Ground truthing and sampling has confirmed the high-grade Ni Co tenor of the region
- **AGE is continuing engagement and discussions with potential strategic partners to advance next exploration steps – one party visiting site October 2021**
- Assay results from two-stage 2018 work include:
  - Initial results: range of significant metal grades ranging **0.19 to 2.48% Ni, 0.02 to 0.17% Co and 0.07 to 0.98% Cu** <sup>6A</sup>
  - Second results release: range of significant metal grades **0.49 to 2.24% Ni, 0.02 to 0.19% Co, 0.12 to 6.38% Cu and 0.6 to 60.8g/t Au** <sup>6B</sup>
- Drilling permits approved within Alpe Laghetto licence and on-ground prep work for ground EM and drone magnetics underway, ready for next field season 2022
- Very supportive EU policies for EV and critical minerals within Europe
- **Alligator has joined the European Battery Alliance, which has the aim of establishing a domestic battery value chain within Europe**



**Detailed technical review by a world-renowned nickel/cobalt geologist with extensive experience in this style of mineralisation has confirmed the potential for large scale Ni and Co occurrences.**

# Cautionary Statement

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## 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 eU3O8, containing 6,300t (13.9Mlbs) of mineralisation at a 100ppm eU3O8 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 8th 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 neighboring Blackbush deposit (JORC 2012 compliant).

The Inferred Mineral Resource was based on drilling data from 43 rotary mud holes, on roughly 200metre centers. 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 neighboring 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.



# ASX References and Statements

Reference	Date	Announcement	Link
1.	10 May 2021	Alligator Partners with Global Uranium Group Traxys	<a href="#">2924-02372956-2A1297261 (markitdigital.com)</a>
2.	11 June 2020	Alligator to Acquire 47 Mlbs uranium resource	<a href="#">2924-02243486-2A1230115 (markitdigital.com)</a> - including the Cautionary Statement in relation to the 2004 JORC complaint Resource
3.	16 December 2020	Samphire Uranium Project – Desk Top Study findings	<a href="#">2924-02322873-2A1270492 (markitdigital.com)</a>
4.	19 April 2012	Alligator announces Caramal resource of 6.5 Mlb U308 @ 0.31%	<a href="https://www.asx.com.au/asxpdf/20120419/pdf/425pwnq4grbc7v.pdf">https://www.asx.com.au/asxpdf/20120419/pdf/425pwnq4grbc7v.pdf</a>
5.	7 May 2021	Alligator commences airborne EM at Big Lake	<a href="#">2924-02372482-2A1297000 (markitdigital.com)</a>
6.	9 July 2019	Rediscovered Ni Co province in Italy	<a href="#">2019 07 09 Market Update - Re-discovered Ni Co Cu province (markitdigital.com)</a>
6A.	26 July 2018	Alligator's first Piedmont assays confirm significant mineralisation with grades up to 2.5% Ni and 0.17% Co	<a href="https://www.asx.com.au/asxpdf/20180726/pdf/43wsdn8f3tq4l1.pdf">https://www.asx.com.au/asxpdf/20180726/pdf/43wsdn8f3tq4l1.pdf</a>
6B.	14 September 2018	Arnhem Land drilling update and further high grade Ni Co Cu Au assays at Alligator's Piedmont project	<a href="https://www.asx.com.au/asxpdf/20180914/pdf/43ybd4j8dtpcy6.pdf">https://www.asx.com.au/asxpdf/20180914/pdf/43ybd4j8dtpcy6.pdf</a>
7.	18 May 2021	Alligator Acquires exploration licence adjacent to Samphire	<a href="#">2924-02375584-2A1298615 (markitdigital.com)</a>
8.	26 February 2020	Nabarlek North tenements to proceed to grant	<a href="#">2924-02206728-2A1208851 (markitdigital.com)</a>
9.	8 April 2011	UraniumSA resource inventory announcement (Blackbush and Plumbush)	<a href="https://www.asx.com.au/asxpdf/20110414/pdf/41y1y07swzhvf1.pdf">https://www.asx.com.au/asxpdf/20110414/pdf/41y1y07swzhvf1.pdf</a>

# Disclaimer and Competent Person's Statements

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## Disclaimer

This presentation 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 – 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 a former employee 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 Moorhouse consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.

## Competent Person's Statement – Nickel Cobalt

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.



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