

ASX: **AGE**

# Company Update

ANNUAL GENERAL MEETING –  
NOVEMBER 2022



**Alligator  
Energy**

## 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 and Resource Drilling Results compiled by Dr Andrea Marsland-Smith, who is a Member of the AusIMM. Dr Marsland-Smith is employed by Alligator Energy as Chief Operating Officer (COO) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity she is undertaking (including 15 years working with ISR uranium development and operations) 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.

## Competent Person's Statement – Nickel Cobalt exploration

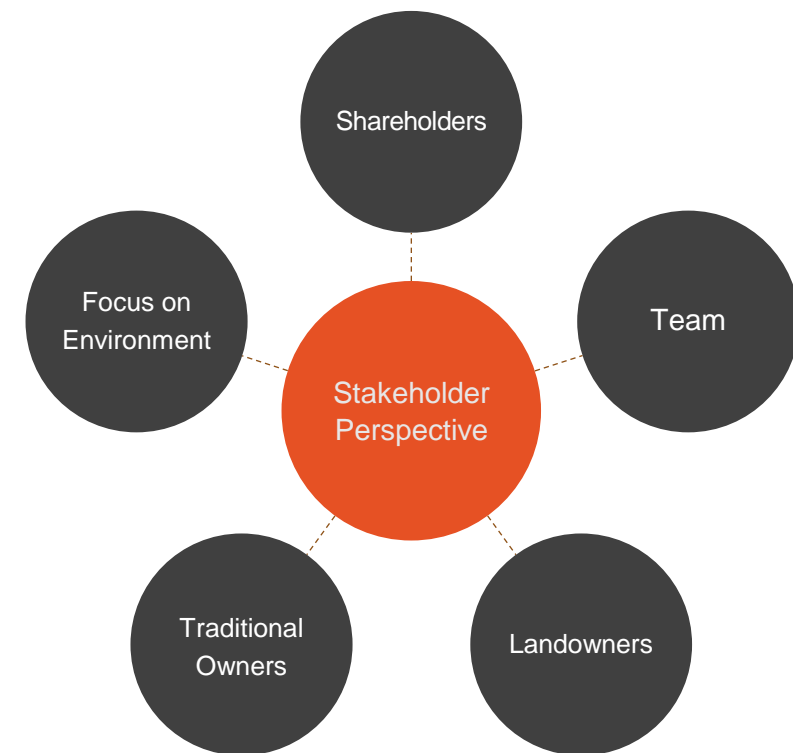
Information in this report is based on current and historic Exploration Results compiled by Mr. Andrew Vigar who is a Fellow of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr. Vigar is a non-executive director of Alligator Energy Limited and has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

# Alligator Energy – Vision and working with Stakeholders

**Alligator Energy is a responsible and progressive uranium and energy metals explorer and emerging producer**

**We look at our business activities through the eyes of our stakeholders:**

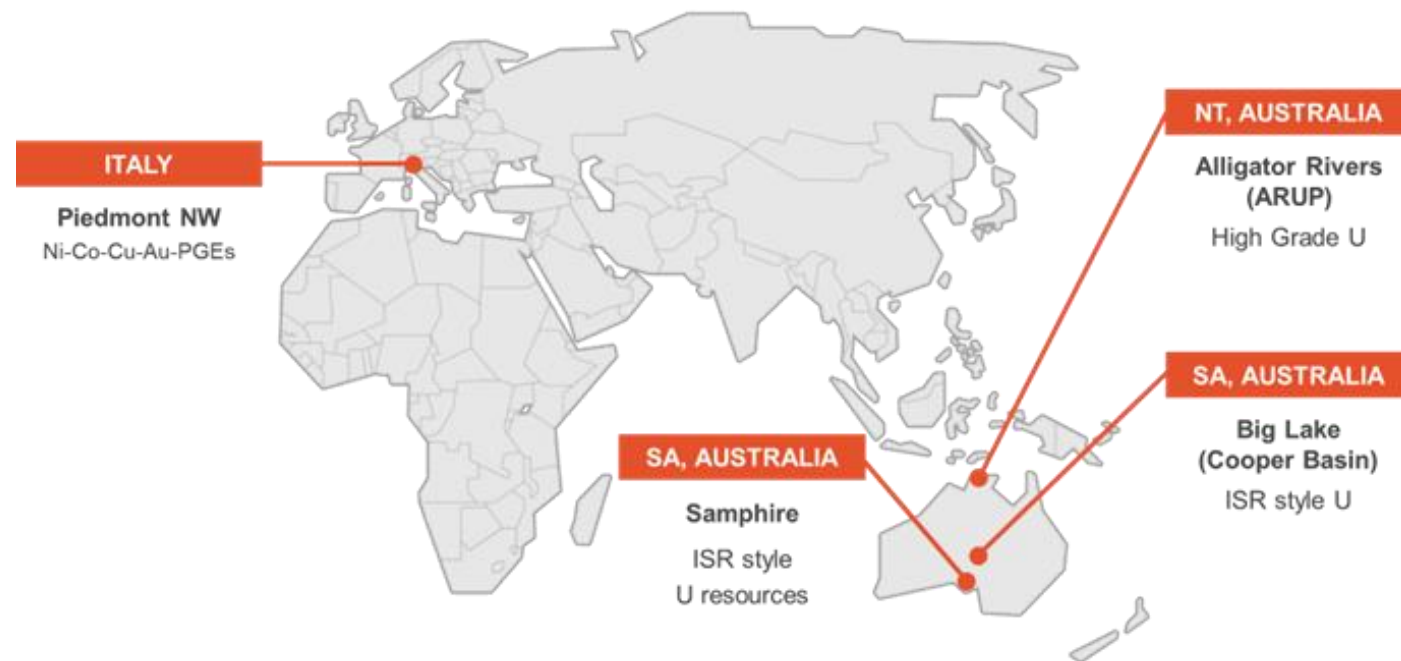
- From a shareholder viewpoint we aim to add value in all of our decision-making
- From an employee perspective we wish to provide an engaging, challenging, enjoyable and respectful workplace
- From a landowner viewpoint we respect your rights and seek to collaborate for our mutual benefit
- From a traditional owner viewpoint, we respect your cultural heritage and your connection to country, and wish to create mutually beneficial opportunities
- From an environmental viewpoint we aim for a low impact through innovation, latest technology, and responsible land management techniques



***Our aim is to discover, source and economically extract these needed commodities with an innovative approach, with either zero or minimal impact, and with positive value and experience for our stakeholders and communities.***

# Alligator Energy – Strategy

- Advance Samphire Uranium Project through resource enhancement, evaluation, field recovery trial and pilot testwork, approvals and pre-development into production
- Identify and test highly prospective exploration targets in the Alligator Rivers Uranium Province & Big Lake Uranium assets
- Value add to its Ni Co Cu Piedmont Project in northern Italy through on-ground work and exploring strategic partnership investment
- Commence evaluation on existing tenements for strategic energy related minerals and opportunities
- Continue to actively evaluate acquisition opportunities of further uranium and energy mineral assets – advanced and innovative
- Strategic relationship with Traxys who are providing uranium marketing services for future uranium production, long-term offtake contracting, project development financing and assist in uranium project acquisition opportunities\*<sup>1</sup>



\* Refer to numbered references on slide at end of presentation

## Key Uranium and Nuclear market related events over the past year

- Uranium spot price commenced 2022 calendar year at ~ US\$43.50 per lb U3O8 – currently around US\$50.25 per lb.
- Continued Sprott Uranium Fund buying, Russian invasion of Ukraine and associated sanctions drove temporary rally to over US\$60 per lb mid year.
- European Commission included nuclear power in its sustainable finance taxonomy.
- Multiple European and other countries announced plans to reverse nuclear phase out policies, initiate plans for new reactors, including SMR's.
- Inflation Reduction Act passed through US Congress - tax credits and enhanced financial access for nuclear generation, Russian imports of uranium and enriched product to zero over three years.
- Russian nuclear fuel phase-out leading to shortages in global enrichment and conversion markets - expected to flow through to uranium.
- Quantum of LT contracting for uranium increased, with 106 Mlbs contracted forward in 53 deals this year.
- International Atomic Energy Agency increased its high case nuclear forecast by 10% through 2050
- Cameco purchase of Westinghouse - becoming further vertically integrated.
- M&A activity amongst uranium companies increased
- Australian Federal Senators introduce a bill to lift the nuclear power ban



**Uranium Spot Price – Nov 21 to Nov 22 - Source: Trading Economics**





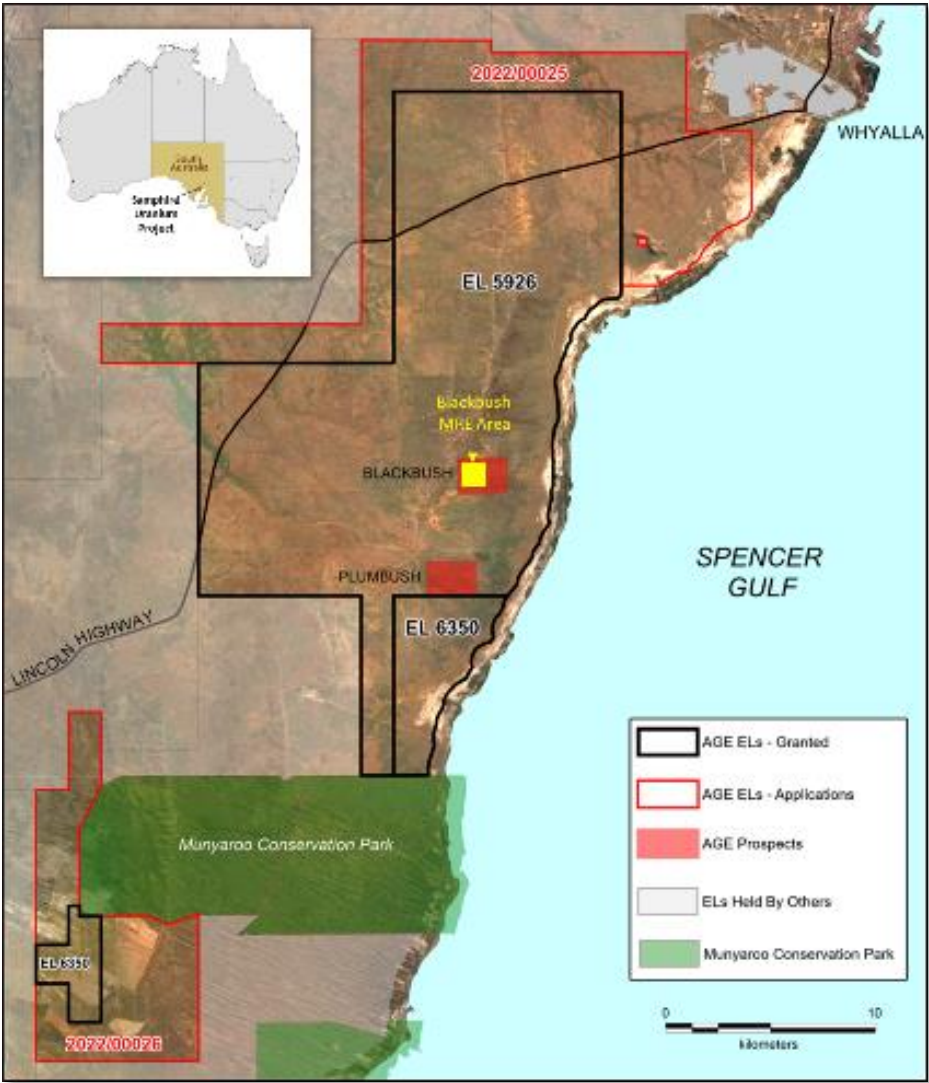
# Samphire Uranium Project Overview

- Mineral Resource of **14.8Mlbs  $U_3O_8$  at 250ppm cut-off, 666ppm average grade**
- Coherent multi-level high-grade zones with cumulative strike length of >2.7km and width between 300-450m
- Multiple open positions not adequately tested – first drill program highlights:

Hole ID: BBRM22-	Metres @ $pU_3O_8$ %	$pU_3O_8$ ppm	Depth from (m):	GT
021	3.44m @ 0.854%	8,540	56.68	29,068
026	4.00m @ 0.706%	7,060	63.00	28,240
020	4.24m @ 0.414%	4,140	61.23	17,554
034	4.35m @ 0.313%	3,130	69.10	13,616

0.5m minimum thickness, >0.025%  $pU_3O_8$  (250ppm  $pU_3O_8$ ), internal dilution 0.25m, GT= grade(ppm) x thickness(m)

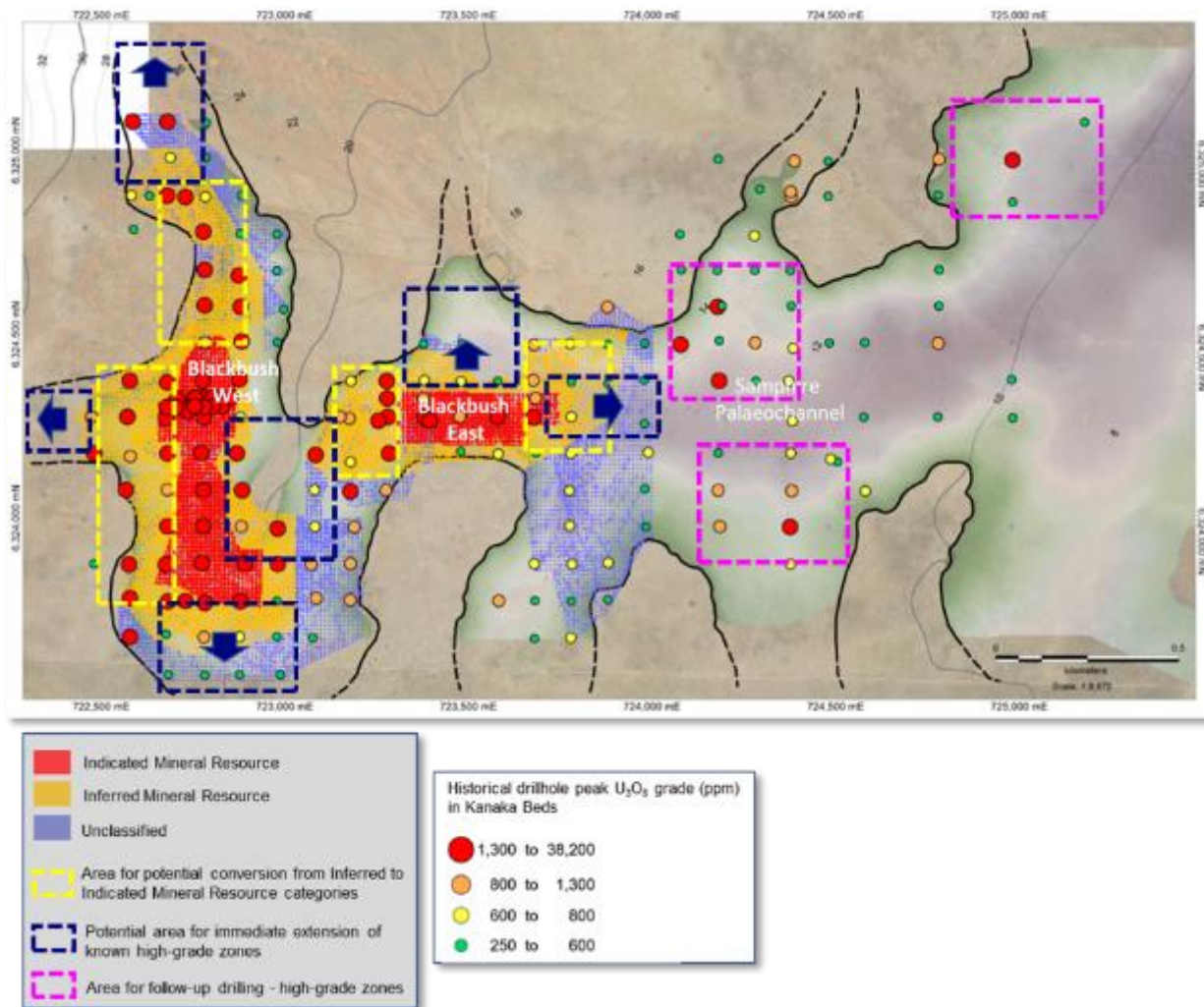
- Shallow (<85m depth) uranium mineralisation in sands amenable to ISR
- Strong potential for a lower development cost profile
  - Close to Whyalla and service providers, close to infrastructure and coms
  - Competitive wellfield drilling development costs due to shallow nature of the deposit
- Significant local & district-scale exploration potential





# Samphire Project – Initial Mineral Resource at Blackbush

Strong Resource Growth Potential, Extension Drilling Commenced



100 hole drilling program underway

- Further conversion of resource from Inferred to an Indicated category
- Updated resource late this year
- Follow-up extensions of the known high-grade zones where mineralisation is not closed off
- Test areas where historical data flag potential for additional accumulations of uranium mineralisation



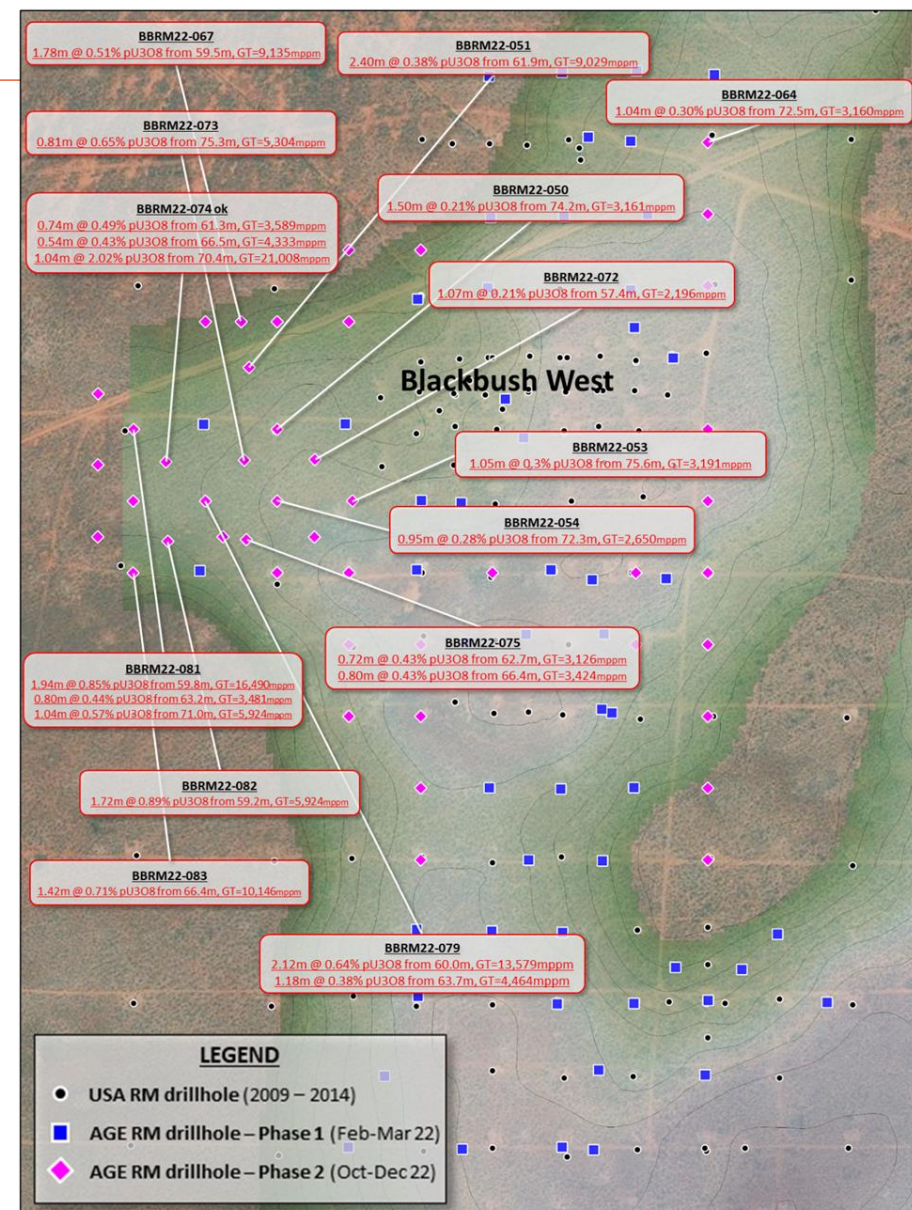
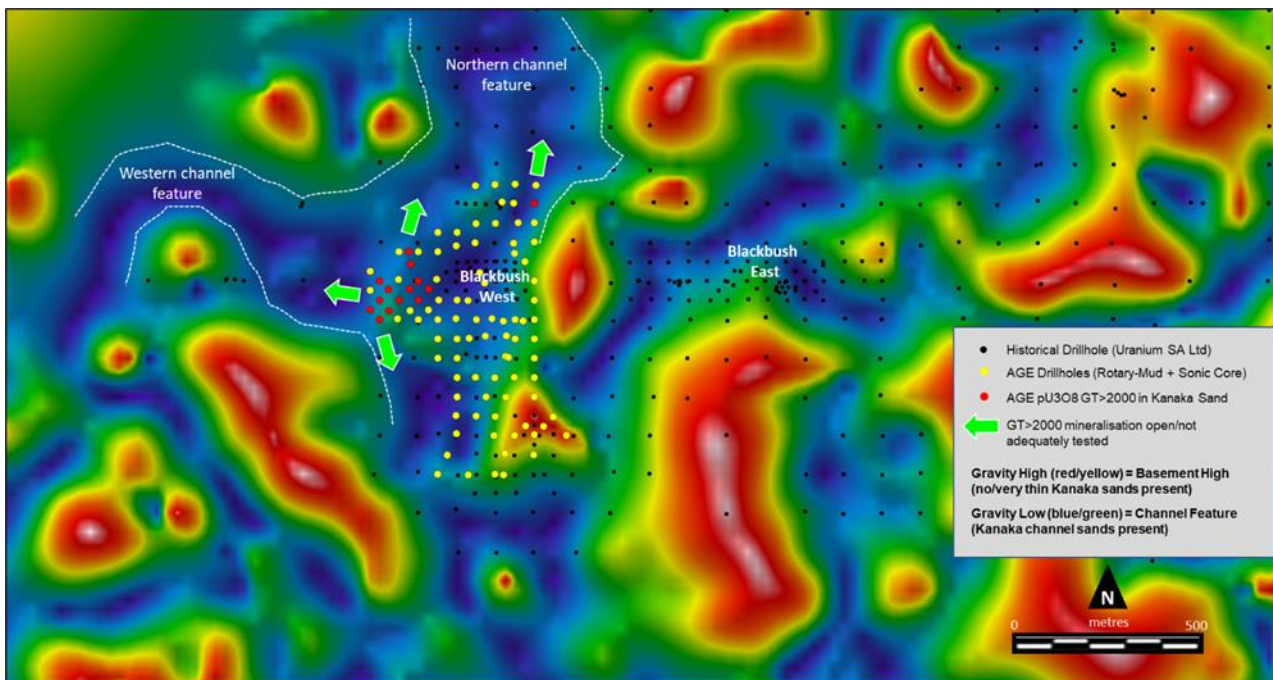


# Samphire Project – Initial Mineral Resource at Blackbush

## Extension Drilling Commenced

Highlights of latest drilling results announced this week

- 1.04 metres at 2.02% (20,200ppm)  $\text{pU}_3\text{O}_8$  from 70.4 metres (GT 21,010)
  - Including 0.5 metres @ 3.54%  $\text{pU}_3\text{O}_8$  from 70.6 metres (GT 17,700)
- 2.12 metres at 0.64% (6,400ppm)  $\text{pU}_3\text{O}_8$  from 60.0 metres (GT 13,570)
- 1.94 metres at 0.85% (8,500ppm)  $\text{pU}_3\text{O}_8$  from 59.8 metres (GT 16,490)
- 1.72 metres at 0.89% (8,900ppm)  $\text{pU}_3\text{O}_8$  from 59.2 metres (GT 16,490)
- 1.42 metres at 0.71% (7,145ppm)  $\text{pU}_3\text{O}_8$  from 66.4 metres (GT 10,150)



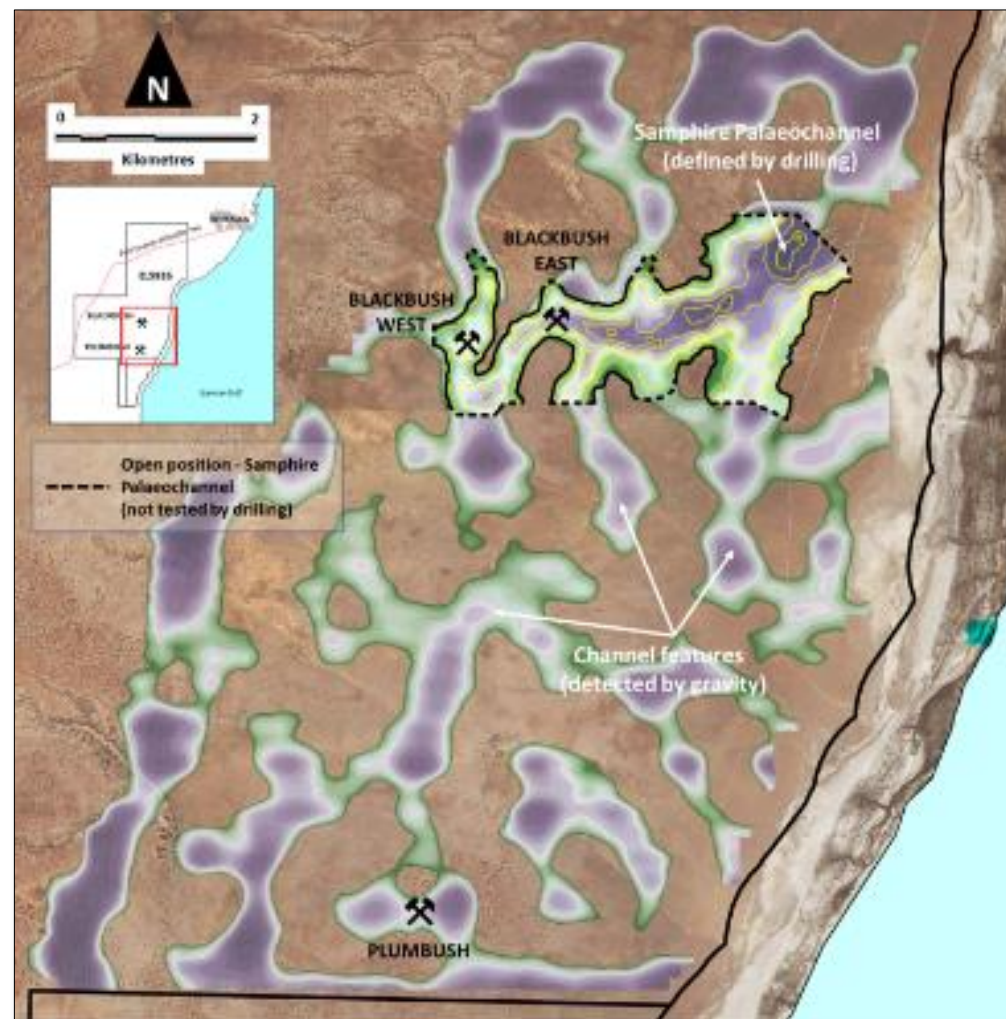




# The Samphire Uranium Project

## Local and district-scale potential

- Walk up drill targets for extension of known mineralisation at Blackbush
  - A number of open positions not adequately tested by previous drilling show potential for extensions of the known mineralisation
  - 100 hole infill and extensional drilling campaign underway
- Plumbush not adequately tested nor its relationship to Blackbush known
- Regional ground gravity shows significant palaeochannel extensions
  - Immediate focus for near-future drill programs
  - Potential for palaeochannel system to extend north and south of the current defined area
  - Potential for additional satellite deposits
- High-resolution ground gravity acquired September 2022 to improve palaeochannel resolution.

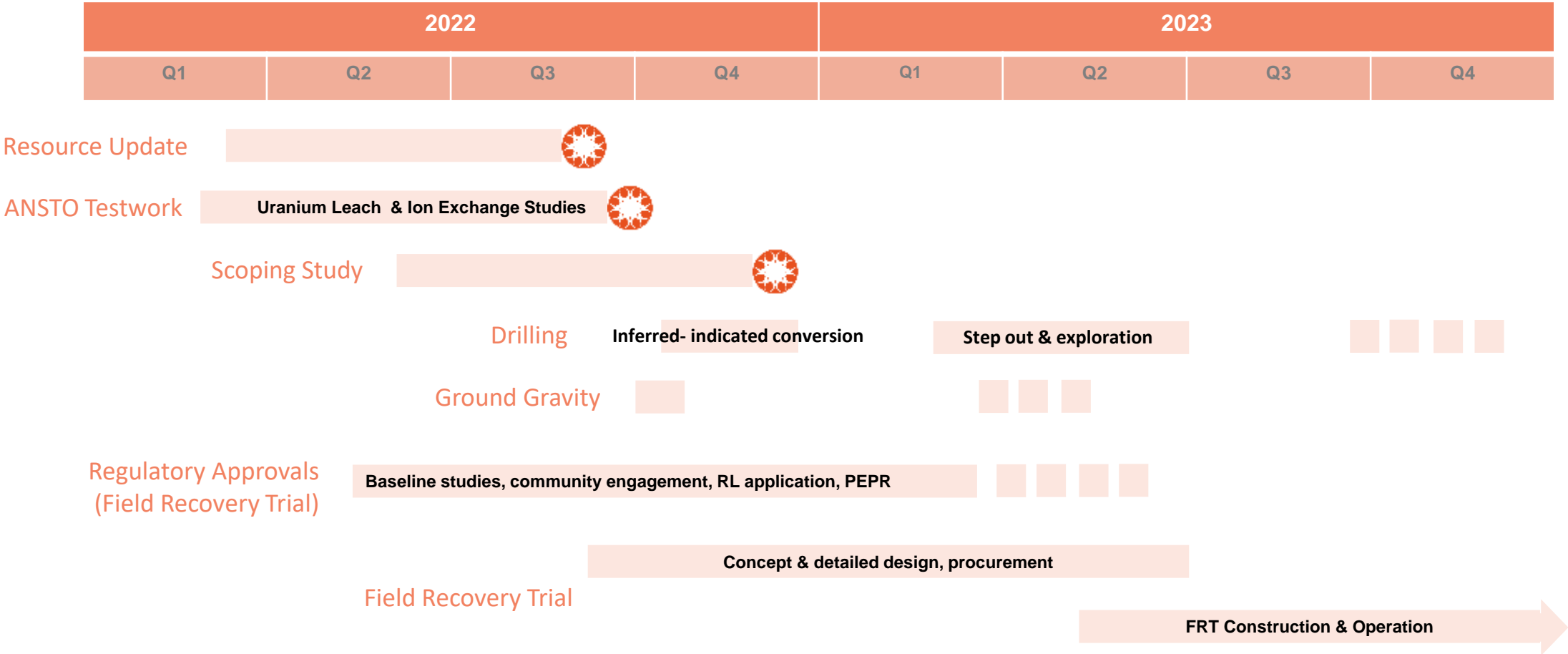


Regional filtered ground gravity showing potential palaeochannel extensions and Blackbush palaeochannel (defined by drilling).



# Samphire Project: Planned Activities and Workflow – 2022/23

## Samphire Uranium Project



# The Samphire Uranium Project - Status

## 2022 Achievements

- ✓ Historical rehab of old drilling areas prior to any work commencing
- ✓ First sonic core and rotary mud drilling program at Blackbush
- ✓ Engagement with pastoralists on rangeland improvement and access for future work
- ✓ Work area clearances undertaken with local Traditional Owners
- ✓ Initial Mineral Resource Estimate targeting in-situ recovery of 14.8M at a 250ppm cut-off and average grade of 666ppm
- ✓ ANSTO uranium leach and recovery testwork – establishment of Scoping Study models
- ✓ Commenced Federal and State approvals for FRT, plus design engineering for FLT
- ✓ Drilling for next resource upgrade underway

## Proposed plans for late 2022 / into 2023

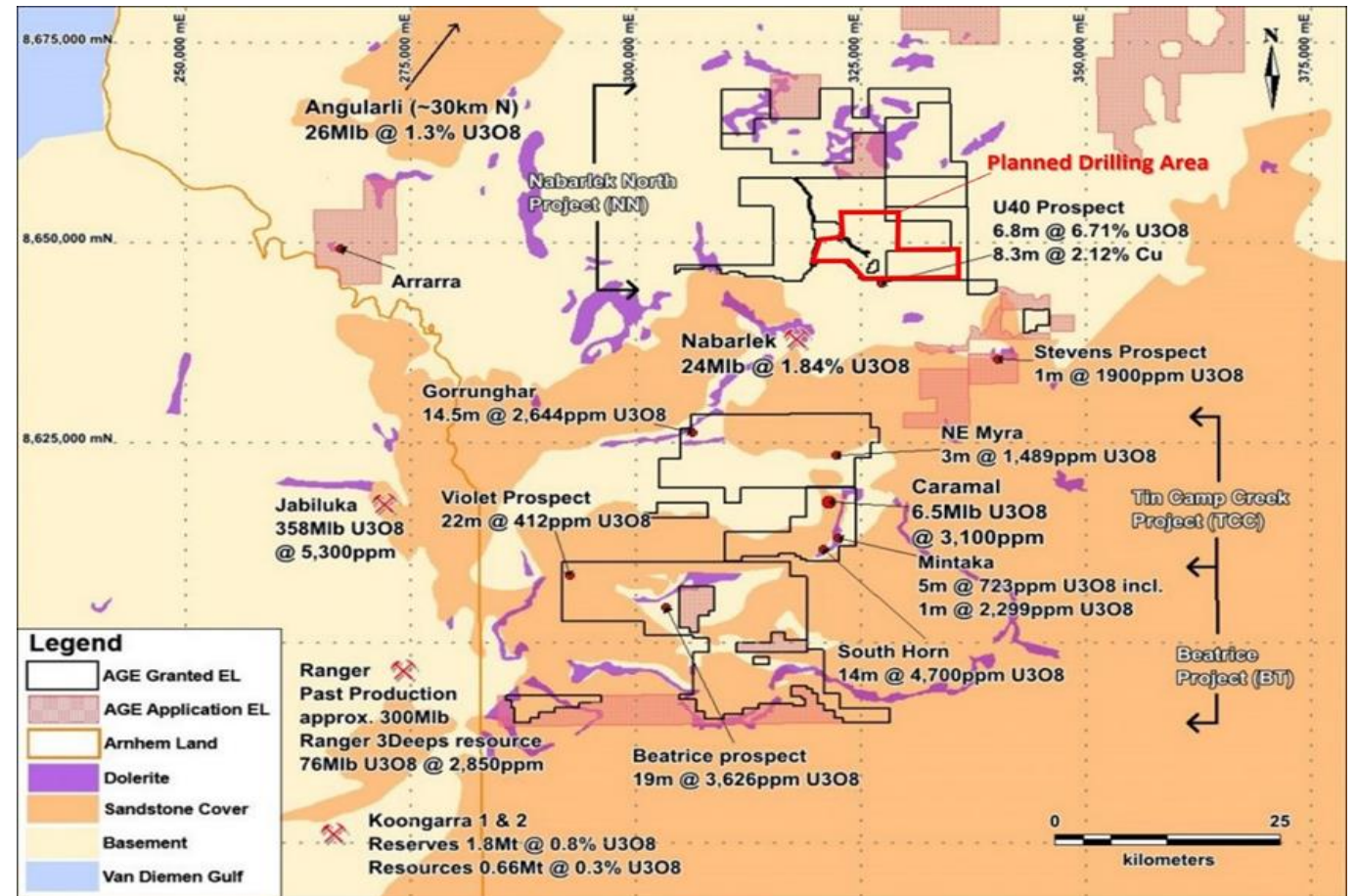
- Complete infill and extensional drilling and preparation of updated Mineral Resource Estimate for Blackbush deposit.
- Completion of ANSTO testwork & Scoping Study for the Blackbush deposit.
- Continuation of State/Federal Government approvals for a RL to allow for the 2023 Field Recovery Trial at Blackbush.
- Commencement of planning and regulatory approvals for 2023 development and exploration programs for extension of the Blackbush deposit and exploration in the wider Samphire palaeochannel system.
- Ongoing recruitment to enhance and develop the Samphire Project technical team.
- Continue work with TO's and landholders to secure access outside of the Blackbush area for further geophysical surveys and drilling.
- Regional gravity survey south of Plumbush deposit for wider exploration



# Alligator Rivers Project Overview

## Key features of the Alligator Rivers Uranium Province (ARUP), NT:

- A 100% owned project in Australia's premier High-Grade uranium province
- Province is host to existing high-grade deposits including Jabiluka (358Mlb @ 5,300ppm  $U_3O_8$ )
- Multiple uranium targets in a well-defined regional uranium bearing zone including the Caramal Resource 6.5 Mlbs  $U_3O_8$  @ 3,100ppm<sup>\*4</sup>
- Inaugural Nabarlek North (NN) exploration program recently completed; adjacent to the U40 prospect (includes 6.8m at 6.71%  $U_3O_8$  and 8.3m @ 2.12% Cu)<sup>\*2</sup>
- Unconformity level exposure across Nabarlek North project gives ease of access and lower exploration costs



## 2022 Achievements

- ✓ Completion of airborne Falcon gravity survey over southern Nabarlek North area
- ✓ Auger and RAB drilling program to understand geochemistry and geology
- ✓ Over 800 samples now with the lab for analysis from around 60 to 70% of planned work area
- ✓ Sourced and established mobile camp, logistics and drilling group
- ✓ Traditional owner cultural clearances for access and engagement
- ✓ Logistics and plans for next year underway early for continued work program

## Proposed plans for late 2022 / into 2023

- Detailed interpretation of Falcon airborne survey and target generation
- ARUP projects workshop to be held – review of all work (historical and current) – develop new work plans
- Updated work program meeting for 2023 work with TO's and NLC
- Extended archaeological survey in Nabarlek North (NN) region
- Re-commence Auger, RAB and RC drilling in NN, and undertake ground IP survey
- Develop targets and potentially undertake first deeper RC drilling
- Access to TCC and Beatrice projects and on-ground targeting updates
- Commence evaluation of the potential for strategic energy minerals



# 2022 RAB Drilling – Nabarlek North.





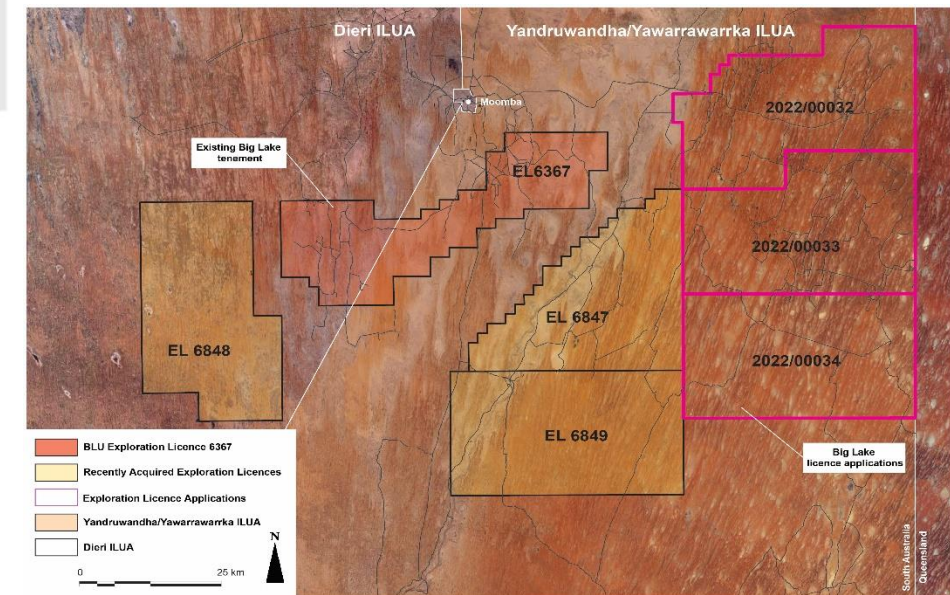
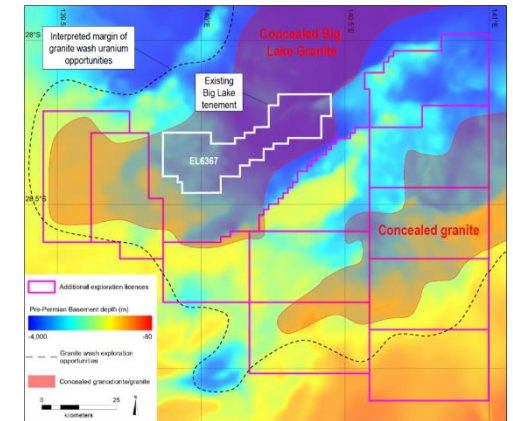
# Big Lake Project Overview

## Key features of Big Lake Uranium, SA

- Cooper Basin in NW South Australia is under explored for uranium, yet has geological analogies to existing world class ISR fields
- Hydrocarbon basins in Kazakhstan, Wyoming and Texas represent analogous redox style uranium settings
- The region has several potential uranium sources including; weathering/leaching of the underlying 'hot' Big Lake Granite Suite\*7 or distal migration of uranium bearing fluids toward basin depocentres
- Recent EM results indicate potential presence of paleochannel systems supporting conceptual hypothesis – include diagram
- Further support from recent and ongoing analysis of publicly available 2D seismic data from historic oil and gas activity



Big Lake – Cooper Basin project location and SA Uranium deposits



## 2022 Achievements

- ✓ Completion of airborne EM survey with potential paleochannels identified
- ✓ Lodgement of new tenement applications
- ✓ Negotiations and draft agreement with local indigenous group for exploration access
- ✓ Seismic / well data QAQC – seismic data reprocessing / velocity modelling
- ✓ Stratigraphic modelling

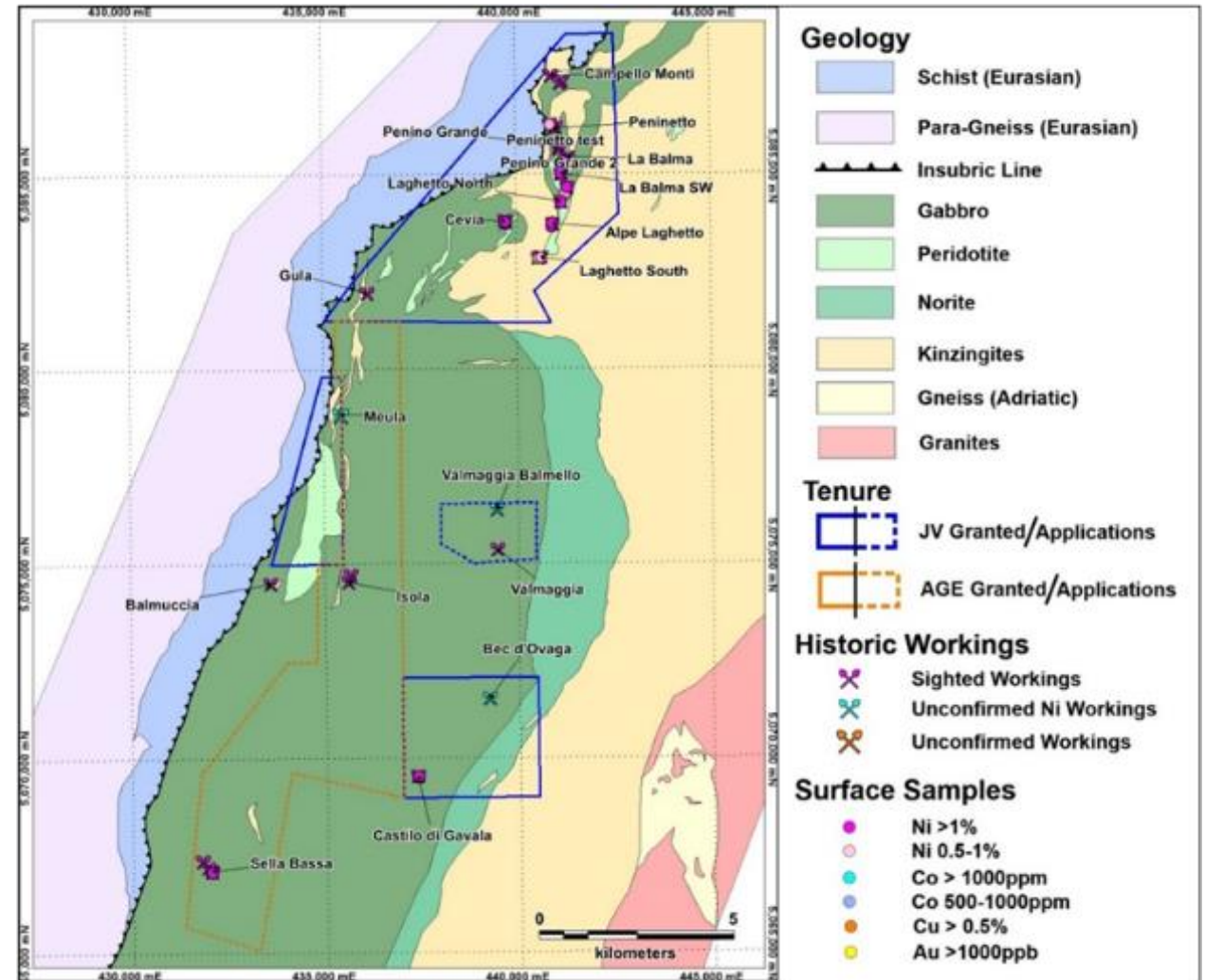
## Proposed plans for 2023

- Finalisation of exploration access agreement
- Workshops for 2023 Work Programmes
- Targeting and selection of initial stratigraphic drill sites
- Drilling area clearance with TO group
- Undertake targeted stratigraphical drilling
- Continued interpretation of the large historical seismic and petroleum drillhole dataset over Big Lake towards development of a 3D basin model
- Evaluation of potential for strategic energy minerals

# Piedmont Project Overview

## Energy Metal Exploration at Piedmont

- Nickel exploration with notable Cobalt, Copper, PGE and Gold credits.
- Significant metal grades from surface rock sampling: **0.19 to 2.48% Ni, 0.02 to 0.19% Co and 0.07 to 6.38% Cu and 0.06 to 60.8g/t Au\***.
- Multiple Ni showings comparable to world class deposits.
- Ground EM survey across the Laghetto prospect undertaken in Sept/Oct 2022.
- Data interpretation now underway
- Early exploration drilling permits approved for Alpe Laghetto.
- **AGE now has an option to acquire 100% of the JV projects and also has other tenements in its own name outright.**





## 2022 Achievements

- ✓ Successful completion of ground EM survey across 5 target prospects within the Laghetto licence
- ✓ EM survey data being reviewed
- ✓ Update Information Memorandum for interested strategic partners – 2 still engaged
- ✓ Additional samples collected from Isola, Sella Bassa, Castilo de Gavala and Laghetto for analysis

## Proposed plans for 2023

- Interpretation of the ground EM survey at Alpe Laghetto to plan next steps.
- Evaluate targets for potential drilling
- Re-engage with potential strategic and other interested partners based on EM and sampling outcomes and targeting
- Continue to evaluate related opportunities and projects in region
- Decision to be made on JV buyout option





# Alligator Energy - ESG in practice

## Alligator Rivers:

- Over 35 indigenous employees on drilling and exploration programs over 10 years
- On country work and support for indigenous ranger groups – even when not exploring
- Nabarlek North agreement – potential for TO groups to become 25% partner.
- Drilling at Nabarlek North in 2022 – Indigenous owned and operated drilling company
- Exploration rehabilitation after each program

## Samphire Project

- Completed remaining historical rehabilitation during project acquisition
- Ongoing drill hole rehab – targeting lifting of bush density to double existing
- Early and ongoing engagement with pastoralists, Traditional owner group, Whyalla community reps
- Working with pastoralists with rangeland improvement initiatives
- Early initiatives for low impact site facilities, Northern Water, sustainable energy

## Big Lake Uranium

- Full draft agreement with YYTLOAC indigenous group being finalised
- Direct indigenous employment from first programs





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Energy**

**Thanks to our shareholders and Board,  
indigenous groups, communities, and  
particularly our employees**

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# ASX References and Statements

Reference	Date	Announcement	Link
0.	31 January, 29 March and 10 May 2022	Alligator Energy – Samphire Drilling Results reported to ASX	<a href="#">2924-02480654-2A1353533 (markitdigital.com)</a> ; <a href="#">2924-02503799-2A1365315 (markitdigital.com)</a> and <a href="#">2924-02520049-2A1373216 (markitdigital.com)</a> ;
1.	10 May 2021	Alligator Partners with Global Uranium Group Traxys	<a href="#">2924-02372956-2A1297261 (markitdigital.com)</a>
2.	26 February 2020	Narbarlek North tenements to proceed to grant	<a href="#">02206728.pdf (weblink.com.au)</a>
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.	17 May 2022	Piedmont Option Agreement Finalisation	<a href="#">2924-02522295-2A1374286 (markitdigital.com)</a>
6A	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>
6B.	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/43wsdn8f3tq4i1.pdf">https://www.asx.com.au/asxpdf/20180726/pdf/43wsdn8f3tq4i1.pdf</a>
6C.	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.	23 May 2022	Big Lake Additional Applications	<a href="#">2924-02523830-2A1375062 (markitdigital.com)</a>
8.	8 April 2011	Maiden Resource Estimate	<a href="#">20 June 2007 (asx.com.au)</a>
9.	8 August 2022	First exploration work commences – Nabarlek North Project	<a href="#">02550741.pdf (weblink.com.au)</a>
10.	1 September 2022	Initial Mineral Resource at Blackbush Deposit Targeting In-Situ Recovery	<a href="#">2022-08-31 Resource-ASX announcement</a>
11.	23 May 2022	Big-Lake Uranium Project – Expanded Footprint	<a href="#">02523830.pdf (weblink.com.au)</a>
12	9 November 2022	Inaugural Alligator Rivers drilling program successfully completed	