

ASX: AGE

Investor Update

SEPTEMBER 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 – Corporate

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 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

- Advancing Sapphire Uranium Project through resource enhancement, evaluation, pilot testwork, 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 on-ground work and exploring strategic partnership investment
- Continue to actively evaluate acquisition opportunities of further uranium 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*¹
- Combined with Traxys, Alligator has one of the most experienced uranium Management, Advisory and Board teams on the ASX.

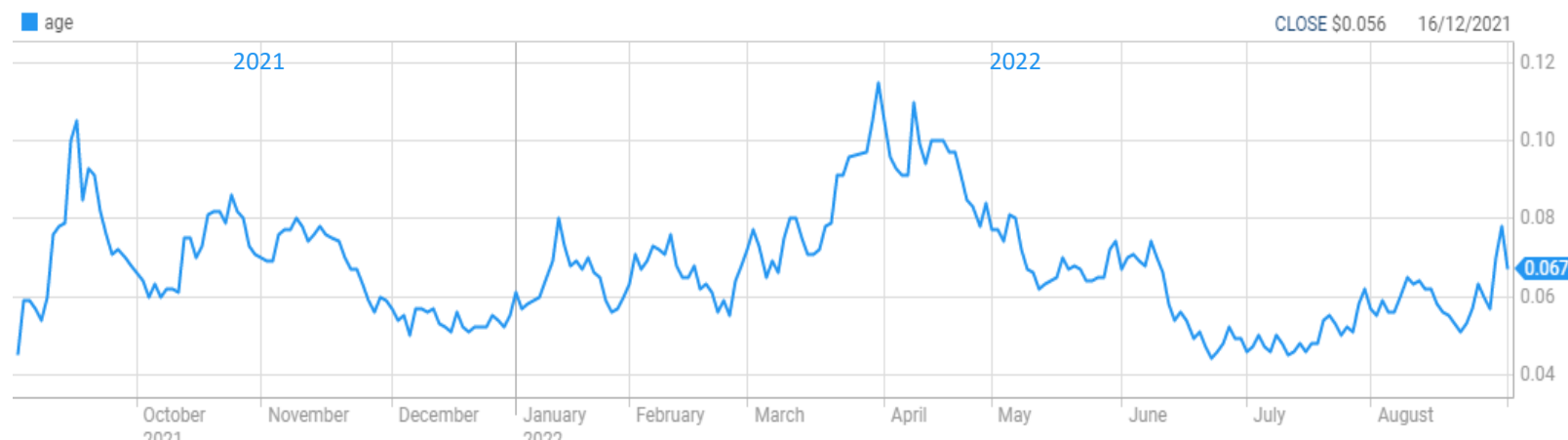
* Refer to numbered references on slide at end of presentation



Alligator Energy – Company Snapshot

Capital Structure (as of 30 August 2022) 12 Months Share Price (As of 23rd August 2022)

Share Price	\$0.07
Ordinary Shares	3,300.3M
Performance Shares and Unlisted Options	176.2M
Cash (as at 31 March)	\$27M
Market Cap	\$231.1M



Leading Uranium Team: One of the most experienced uranium Management, Advisory and Board teams on the ASX

Strategic Partnership: Traxys Partnership provides substantial Shareholder value*¹

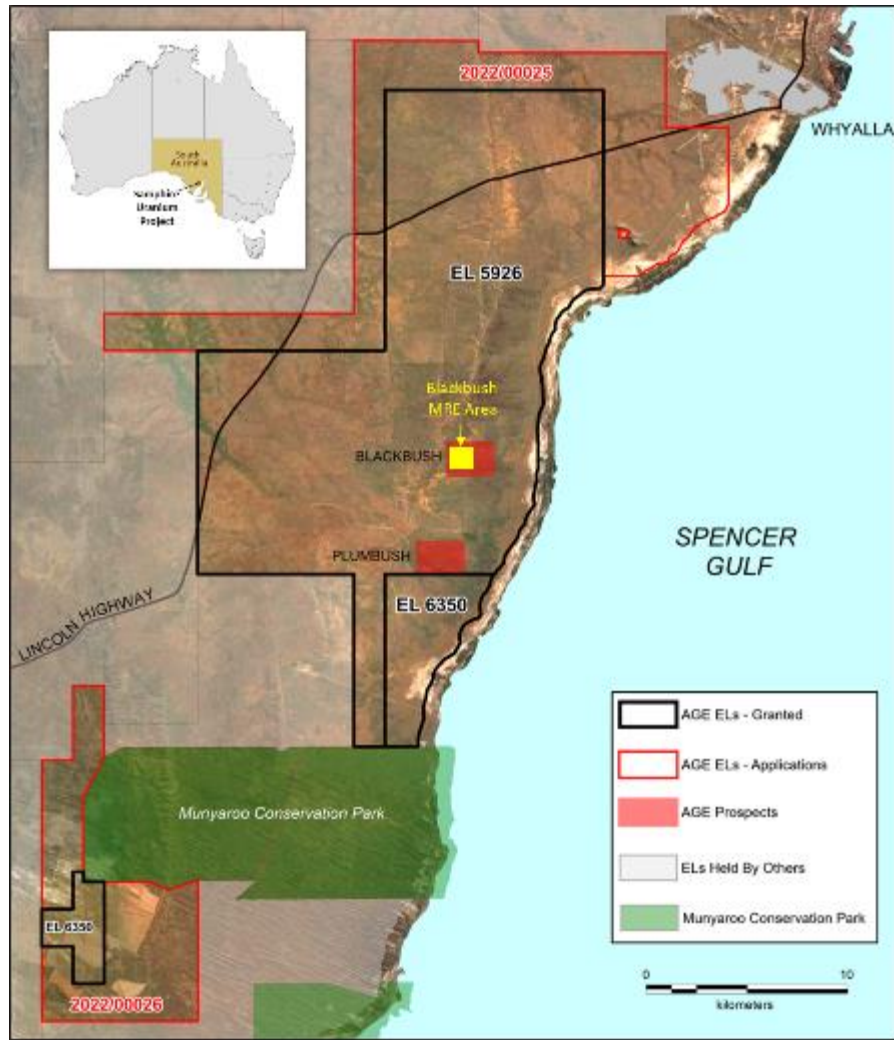
Diverse Project Portfolio: 3 key uranium projects in Australia, and an energy metals project in Italy

Near-Term Development (Sapphire Project): 14.8Mlb indicated & inferred uranium resource at Blackbush deposit*¹⁰ and ~5km south an historical estimate of uranium mineralisation at Plumbush*⁸

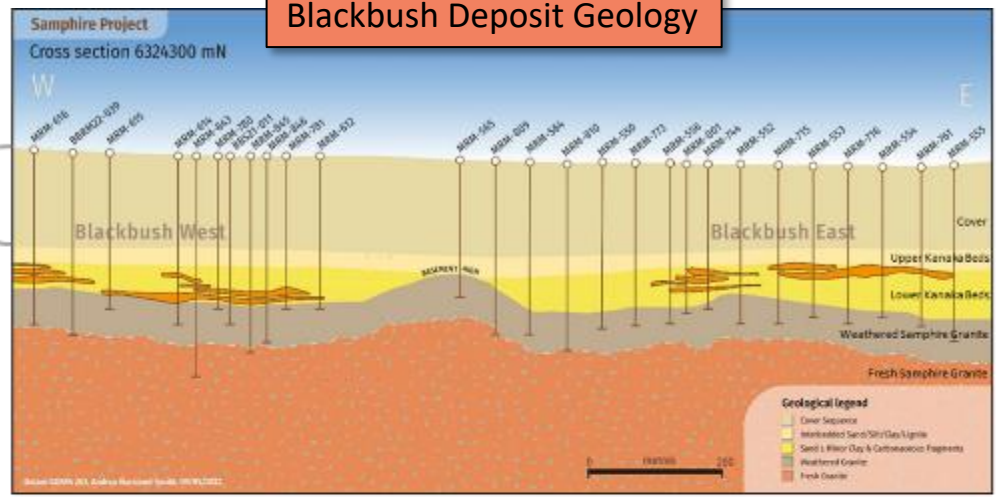
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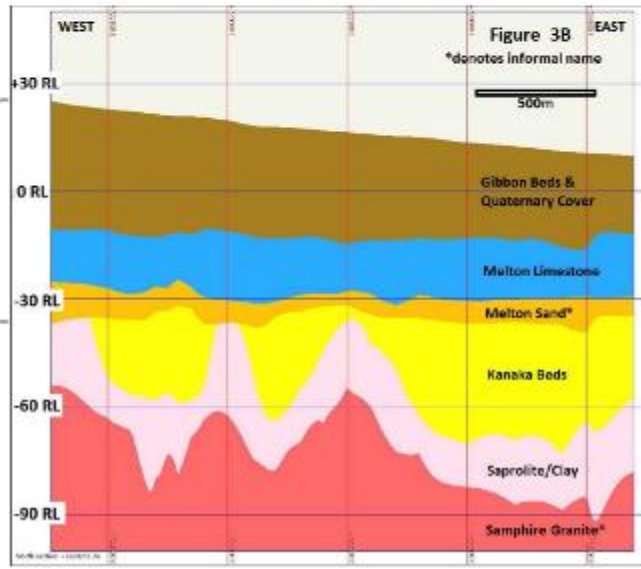
Samphire Project – Resource Update



Blackbush Deposit Geology



- Kanaka Beds (ISR Amenable)
- Host to Samphire Uranium Mineralisation



Kanaka Beds




Samphire Project – Initial Mineral Resource at Blackbush

Targeting In-Situ Recovery

Initial High Grade ISR Mineral Resource Estimate of 14.8Mlbs at 666ppm U₃O₈

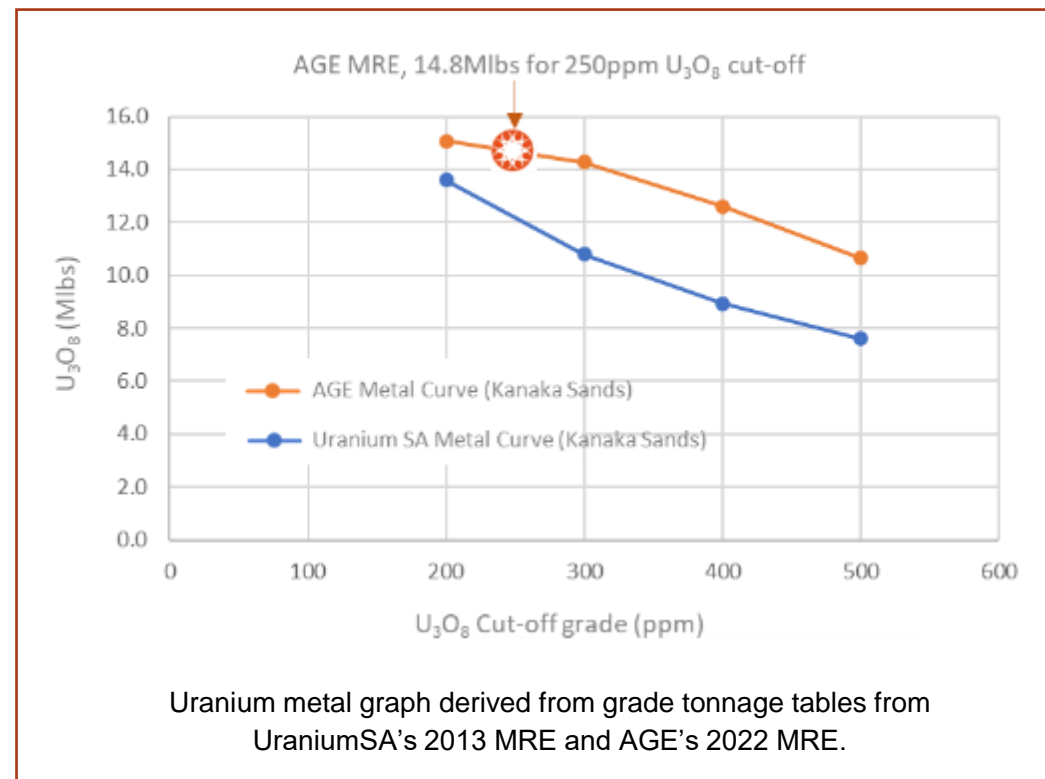
- Combined Inferred and Indicated from **10Mt @ 666 ppm U₃O₈ at 250ppm cut-off grade** for the Blackbush Deposit (Blackbush)

Higher Grade and Higher Resource Confidence from AGE's work

- Ave grade of 666ppm U₃O₈ has lifted from UraniumSA's (previous owner) global mean grade of 230ppm U₃O₈
- Uranium metal content increased by 25% 
- Lifted 6Mlbs into the Indicated Mineral Resource category

Strong Resource Growth Potential, Extension Drilling Commencing

- Further conversion of resource from Inferred to an Indicated category
- 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.

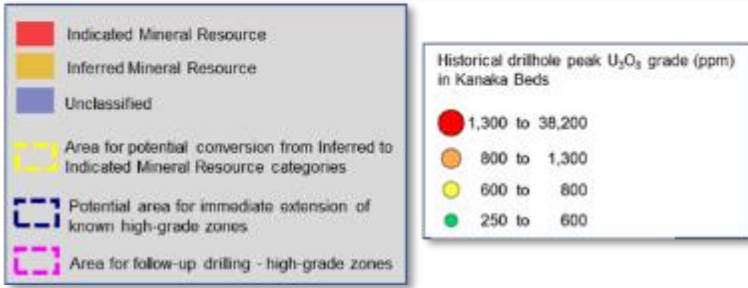
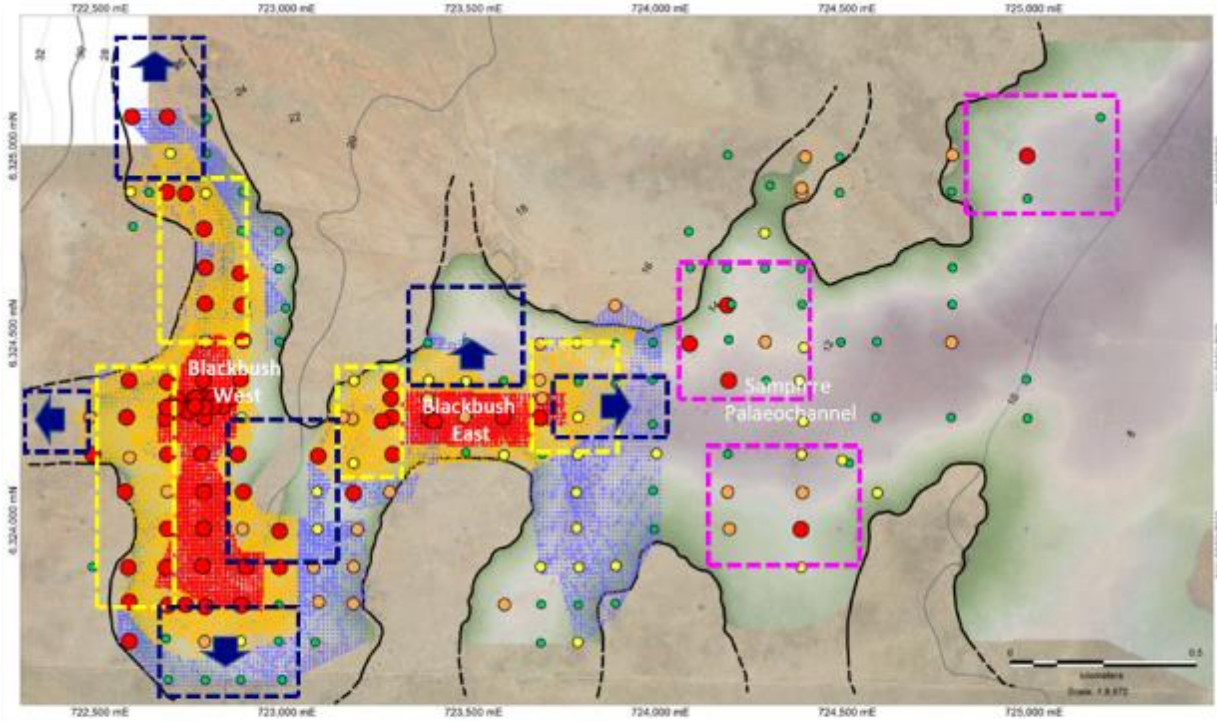


Blackbush is now on par with several existing and previously operating ISR projects in Australia and the USA.




Samphire Project – Initial Mineral Resource at Blackbush

Strong Resource Growth Potential, Extension Drilling Commencing



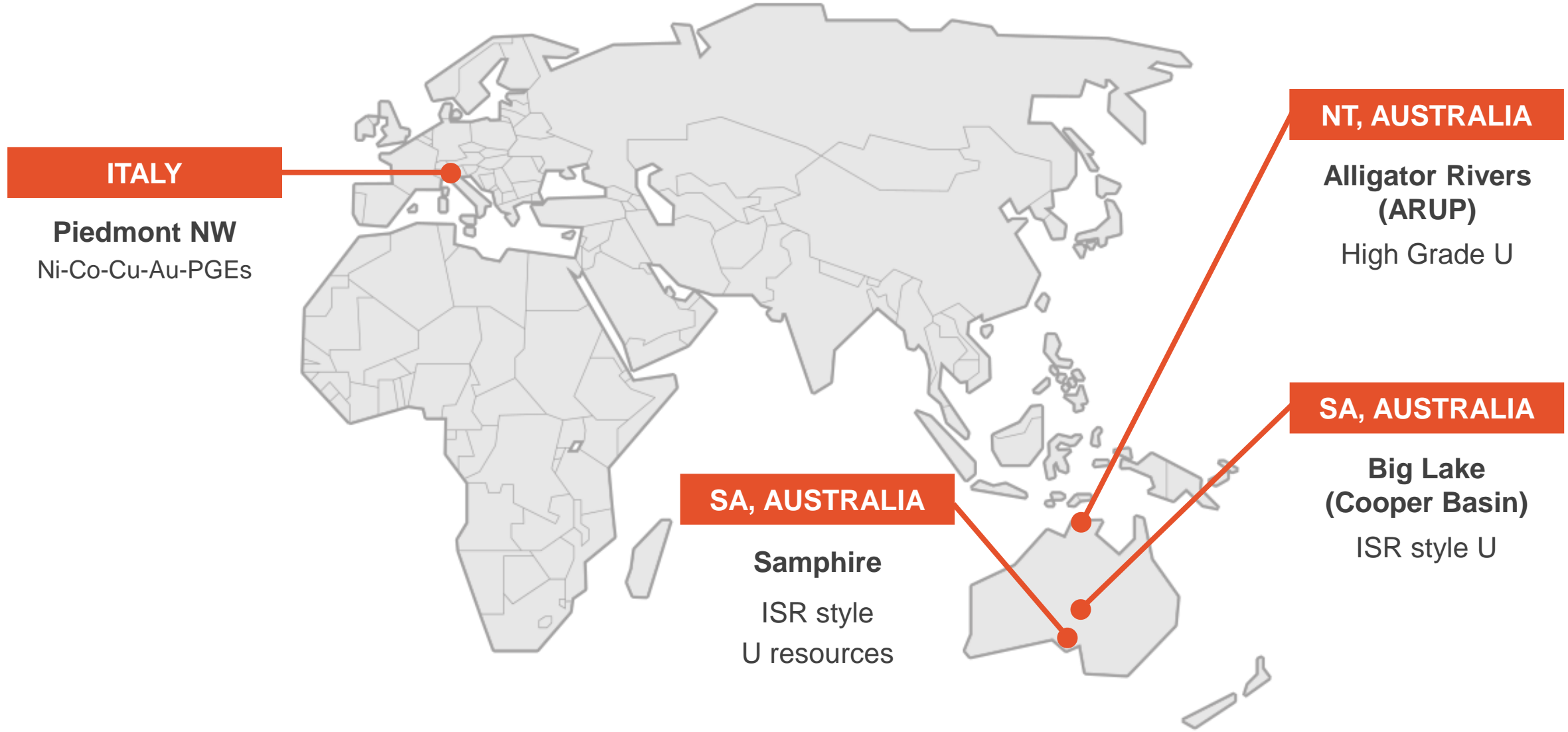
100 hole drilling program commencing early October

- Further conversion of resource from Inferred to an Indicated category
- 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



Alligator Energy – Projects

Alligator Energy – Project Locations





Alligator Energy – Portfolio Status

Project	Current Status	Next Steps
<p>Sapphire Uranium Project, South Australia</p>	<ul style="list-style-type: none"> • Blackbush - High grade uranium ISR Mineral Resource Estimate of 14.8Mlb at 250ppm cut-off grade, av. Grade 666ppm U₃O₈ (Inferred and Indicated) ^{*10} • Historical uranium resource estimate at Plumbush. ^{*8 *10} ~5km south of Blackbush. • Significant tenement holding surrounding both deposits to expand existing resource base. • ANSTO leach and IX recovery testing nearing completion. • Full Scoping Study model and tables ready to be populated once ANSTO results are received. • Blackbush field recovery trial (FLT) planning and permitting underway (target for operation Q4 2023). • Significant upside through increased grade and resource confidence • Strong resource growth potential with mineralisation extensions, further discoveries, implementation of modern extraction and recovery techniques. 	<ul style="list-style-type: none"> • Completion of ANSTO test work to feed into a Scoping Study (end Q3) • Drill testing (100 holes) commencing early October 2022 to: <ul style="list-style-type: none"> – convert more resource from Inferred to indicated category (Blackbush). – test high-grade areas where mineralisation not closed off. – test areas where historical data surrounding Blackbush flag potential for additional uranium mineralisation. • High-resolution ground gravity survey at Blackbush and surrounds to map host palaeochannel in detail. • Consultation with Plumbush landholder re access for follow-up work. • Regional exploration strategy to target additional resource extensions in the immediate area around Blackbush and within AGE’s tenements.
<p>Alligator Rivers Uranium Province (ARUP), Northern Territory</p>	<ul style="list-style-type: none"> • Contains multiple uranium targets in a well-defined high grade regional uranium bearing zone, which includes the Caramal uranium resource 6.5 Mlbs U₃O₈ @ 0.31% (3,100ppm)^{*4} • Prospective Nabarlek North (NN) tenements granted giving Alligator in excess of 1,150km² of active tenure in Australia's premier Uranium district adjacent to the high grade U40 Uranium Copper Gold Prospect. ^{*2} • Reprocessing and re-interpretation of historical EM completed over NN. • High-resolution airborne gravity survey in progress to assist drill targeting^{*9}. • Approvals received for 2022 drilling program paving way for commencement late Q3/Q4. • Lower cost exploration focus at under-explored and highly prospective Nabarlek North Project whilst continuing to evaluate identified targets at TCC/Beatrice 	<ul style="list-style-type: none"> • RAB/Auger drilling to follow-up on key geophysical and structural targets (late Q3/Q4). • Ground IP survey over key structures and areas of geochemical anomalism. • RC follow-up drilling in 2023 of targets generated from 2022 work programs (already permitted)

* Refer to numbered references on slide at end of presentation



Alligator Energy – Portfolio Status

Project	Current Status	Next Steps
Big Lake Uranium Prospect, Cooper Basin, South Australia	<ul style="list-style-type: none"> Uranium source rocks of the Big Lake Granite Suite identified in seismic data and historical petroleum wells – previous drilling shows uranium present in system. “Granite-wash play” substantially increases the area fertile for ISR amenable uranium deposits^{*11} Additional tenement application has expanded the Big Lake Project footprint with significant increase in landholding in Cooper Basin. ^{*11} Incrementally reprocessing seismic data (incremental approach through tenements). Broad continuous palaeochannel systems and other target host rocks identified in recently-acquired airborne electromagnetics (“EM”) and evident in seismic data. All pre-requisites for a functional roll-front uranium system present. Potential for discovery of new low cost ISR style roll-front deposits in the Cooper Basin. 	<ul style="list-style-type: none"> Indigenous Access Agreement to be concluded. Granting of new tenement applications. Targeting stratigraphic drilling in 2023 for ground truthing (subject to access agreement).
Piedmont Project, Northern Italy	<ul style="list-style-type: none"> Contains multiple historic Ni Co Cu mines – previous ground truthing and sampling has confirmed the high-grade Ni tenor of the region. 17 occurrences of > 0.5% Ni in a region of interest extending some 30kms in length, by 2 to 3kms wide. ^{*6A, 6B, 6C} AGE 100% control of Piedmont ELs following conclusion of purchase option agreement.^{*5} Continued engagement for potential strategic partnership and investigation into other value add opportunities 	<ul style="list-style-type: none"> Ground based electromagnetic geophysical survey over prospective Alpe Laghetto prospect - late Q3/early Q4 Broader ranging drone magnetics surveys over additional prospects – Q4 Target identification for drilling at both Laghetto and across other prospects - 2023

* Refer to numbered references on slide at end of presentation



The Samphire Uranium Project

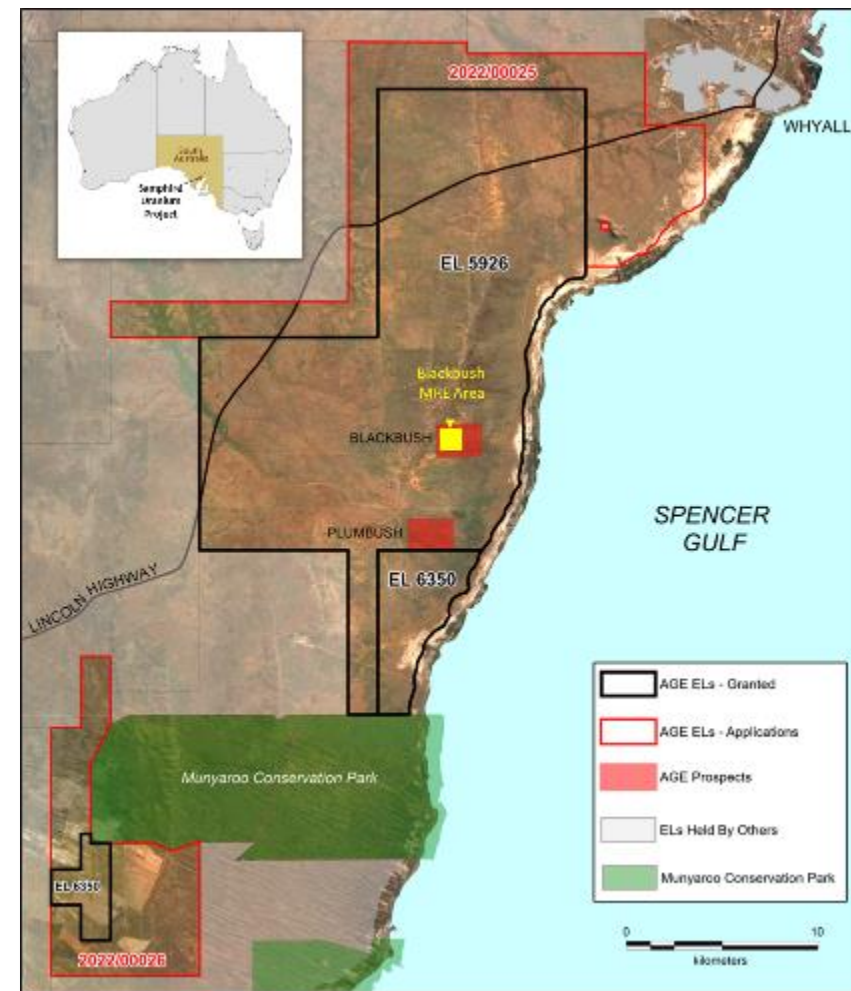
Key aspects of Samphire

- Mineral Resource of **14.8Mlbs U₃O₈ 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

Hole ID: BBRM22-	Metres @ pU ₃ O ₈ %	pU ₃ O 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% pU₃O₈ (250ppm pU3O8), internal dilution 0.25m, GT= grade(ppm) x thickness(m)

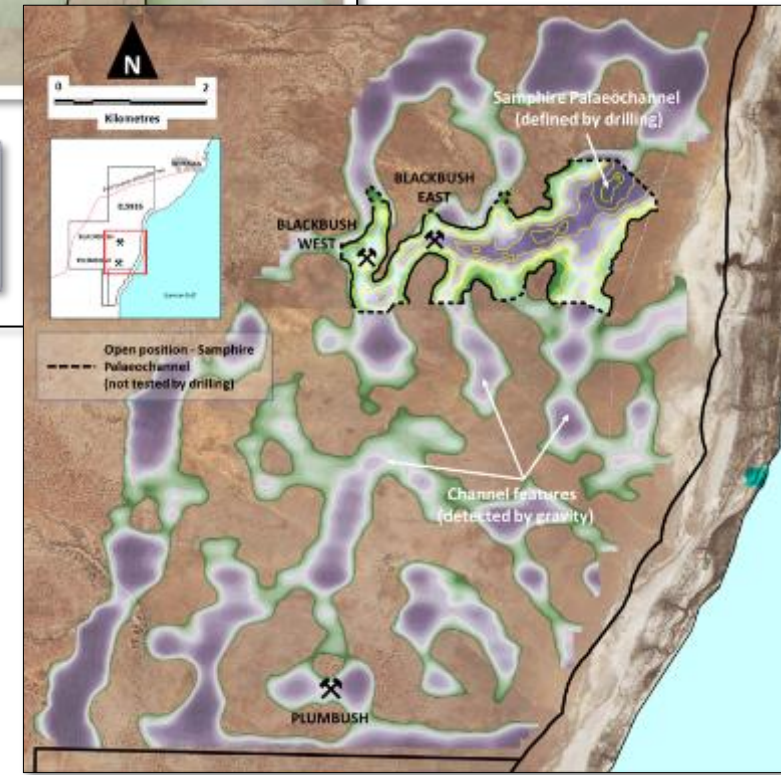
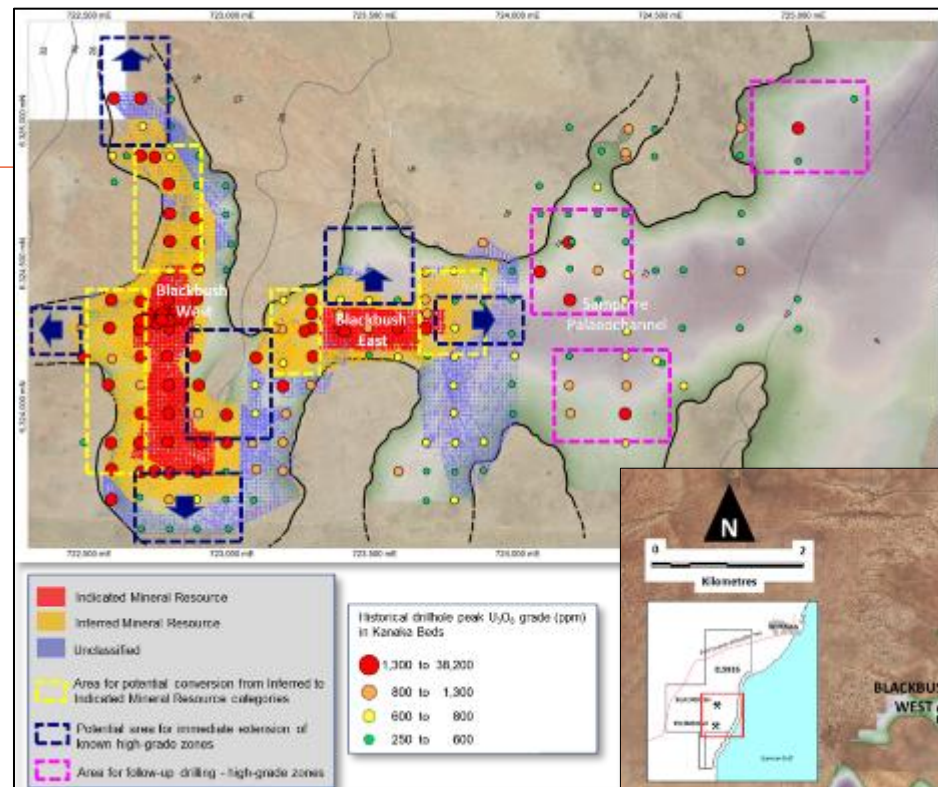
- Shallow (<85m depth) uranium mineralisation in sands amenable to ISR
- Strong potential for a lower development cost profile
 - Close to Whyalla (not reliant on an entire FIFO workforce) and service providers
 - Competitive wellfield drilling development costs due to shallow nature of the deposit
 - Existing communication network
- Significant local & district-scale exploration potential



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 drilling campaign to commence early October 2022
- 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 to be acquired September 2022 to improve palaeochannel resolution.

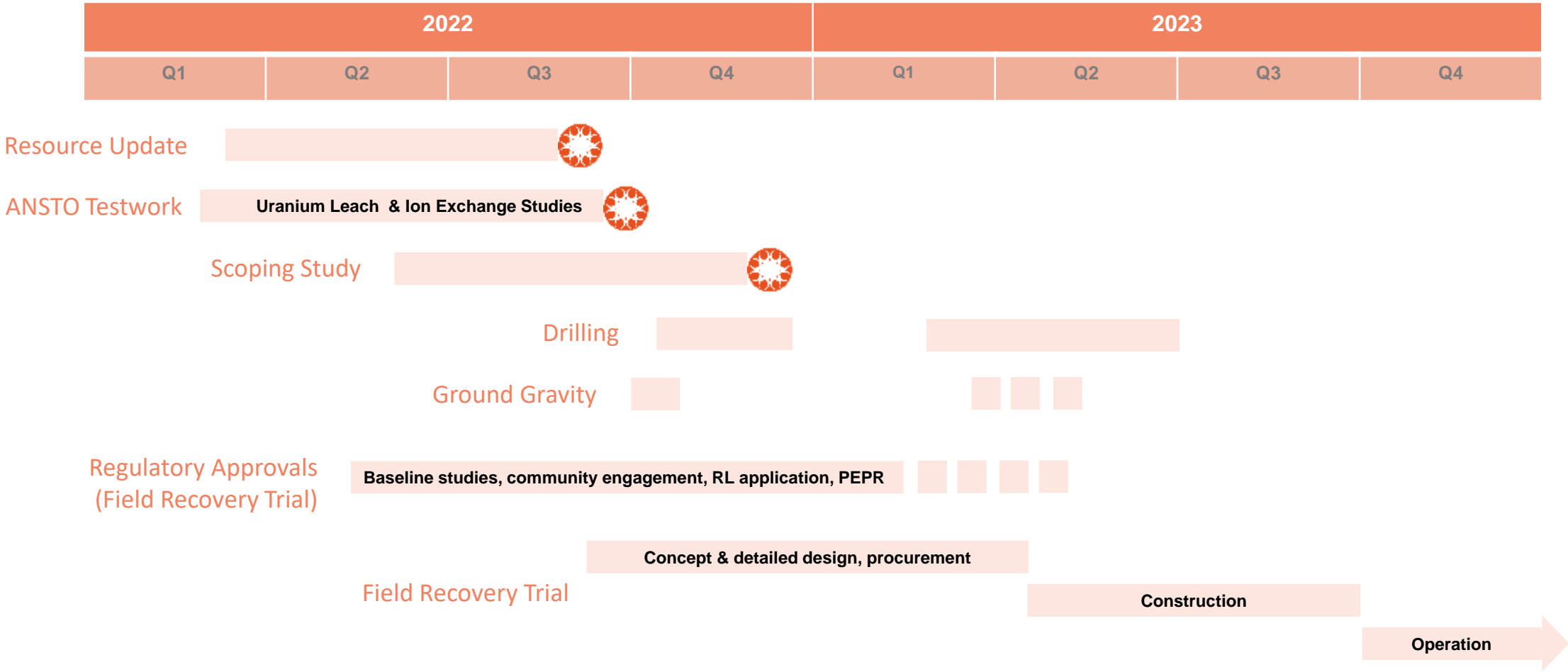


Regional filtered ground gravity showing potential palaeochannel extensions and Blackbush palaeochannel (defined by drilling).



Samphire Project: Planned Activities and Workflow – 2022/23

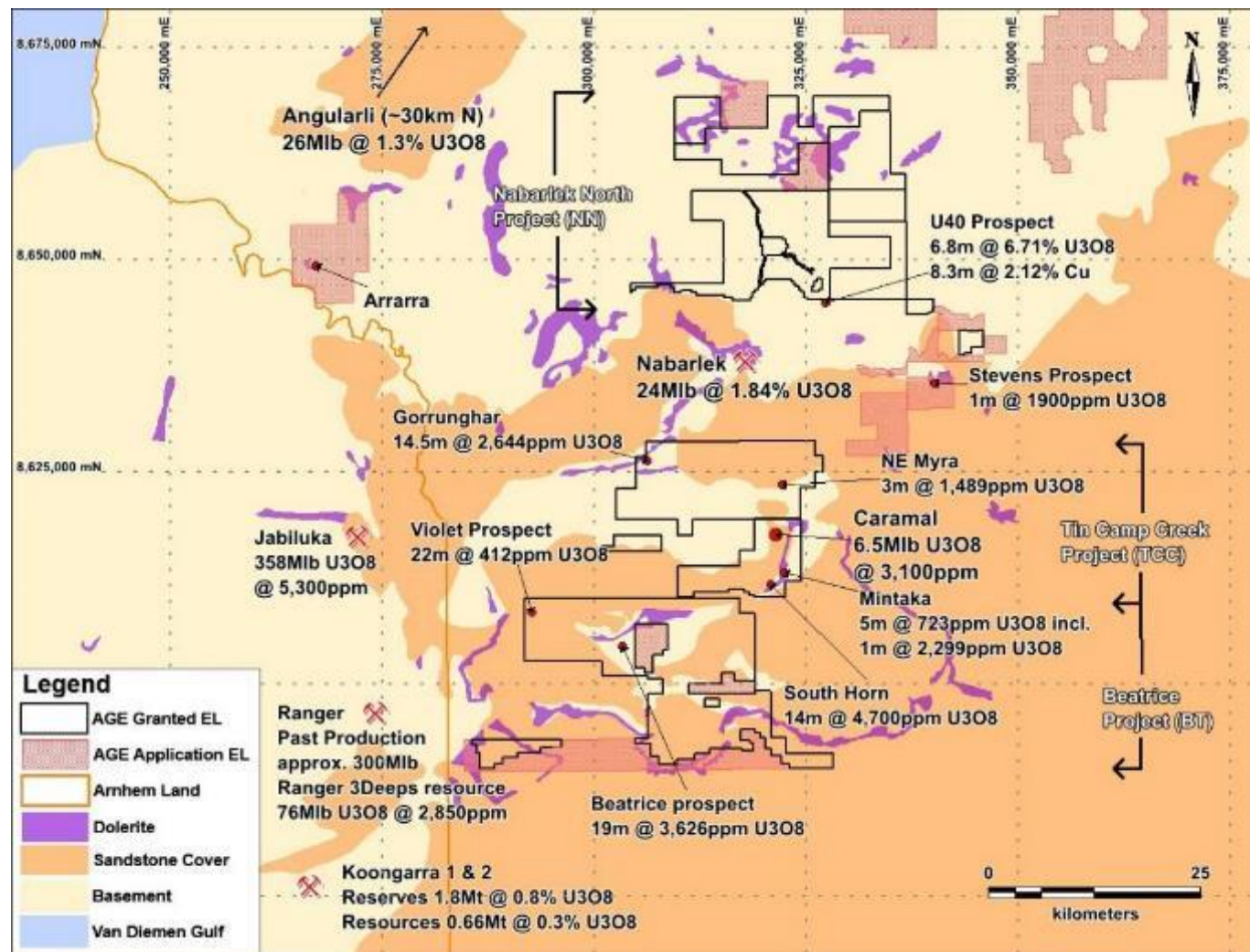
Samphire Uranium Project



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 U₃O₈)
- Multiple uranium targets in a well-defined regional uranium bearing zone including the Caramal Resource 6.5 Mlbs U₃O₈ @3,100ppm*4
- TO and Government approvals received for Nabarlek North (NN) for 2022 exploration program; adjacent to the U40 prospect (includes 6.8m at 6.71% U₃O₈ and 8.3m @ 2.12% Cu)*2
- Unconformity level exposure across Nabarlek North project gives ease of access and lower exploration costs

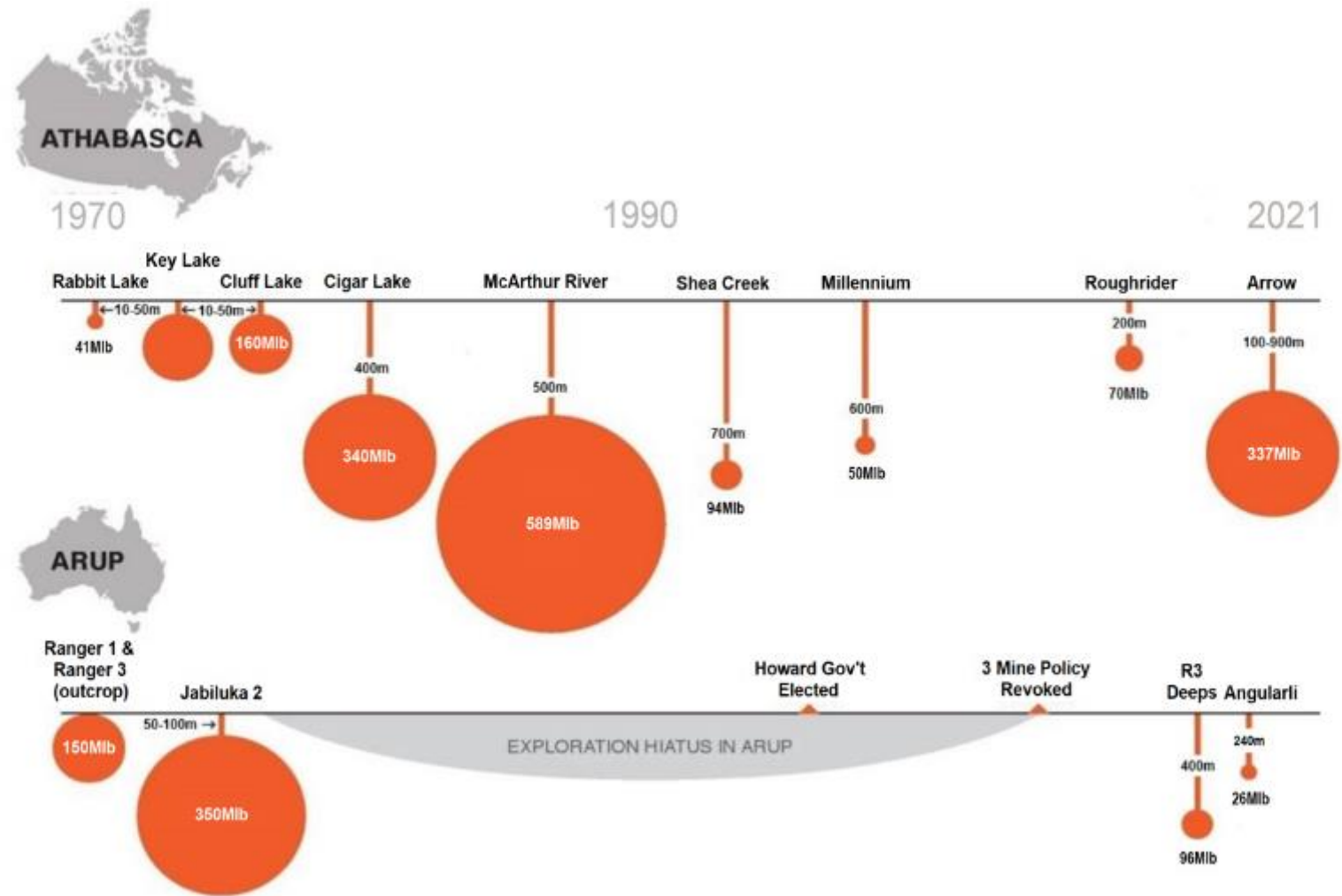




ARUP vs Athabasca

The ARUP is analogous to Canada's Athabasca Basin

- The Athabasca Basin has been heavily explored and hosts some of the world's largest uranium mines and deposits
- ARUP is geologically analogous and has yielded some significant deposits. It remains very underexplored in comparison
- Australia's three-mine policy in place from mid-70s to mid-90s created a hiatus in uranium exploration in the ARUP
- **Alligator has completed an agreement over its NN tenements whereby local indigenous groups have the opportunity to become up to a 25% JV partner upon discovery leading to a mining agreement.**



Key features of Big Lake Uranium, SA

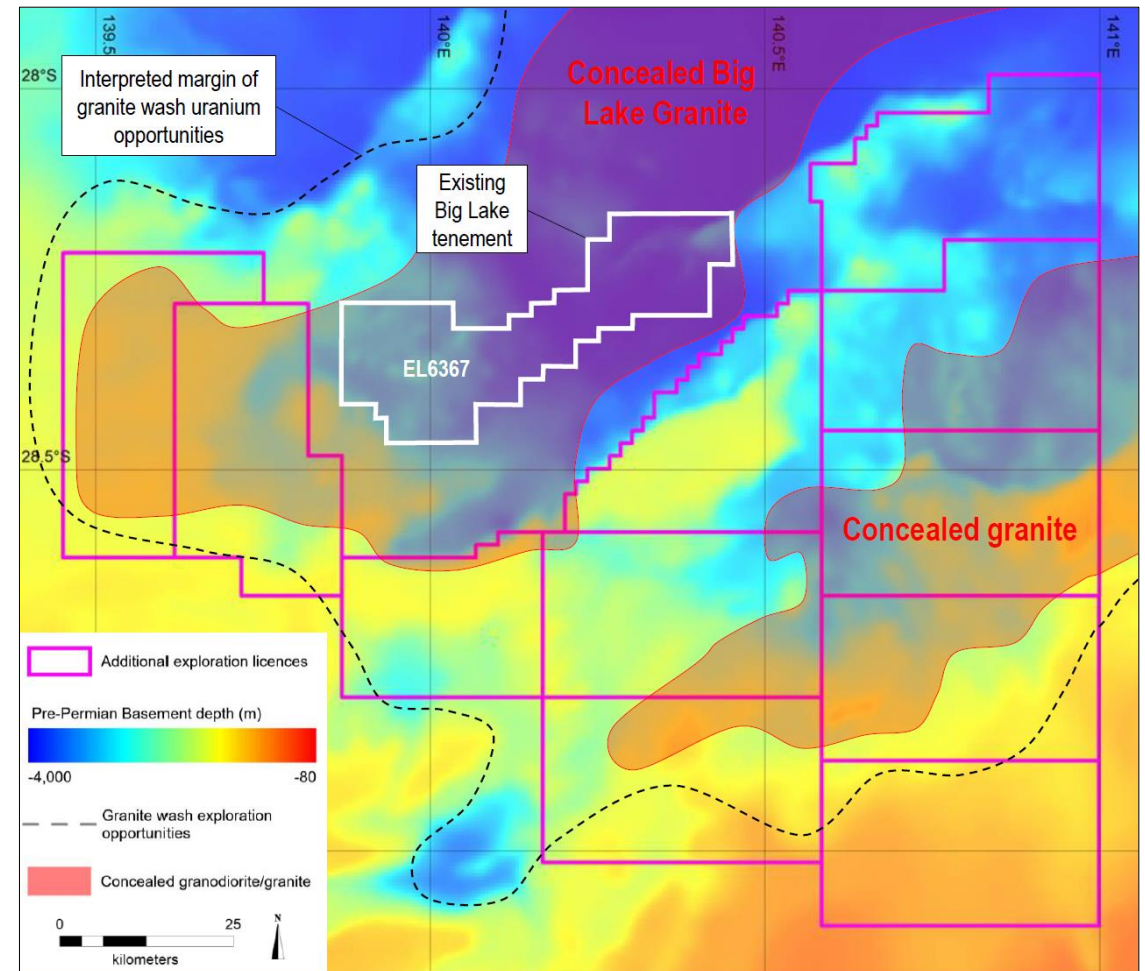
- Cooper Basin in NW South Australia is under explored for uranium, yet has geological analogies to existing world class ISR fields
- Hydrocarbon basins in Kazakhstan, Wyoming and Texas represent analogous redox style uranium settings
- The region has several potential uranium sources including; weathering/leaching 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

Expanded uranium exploration search space

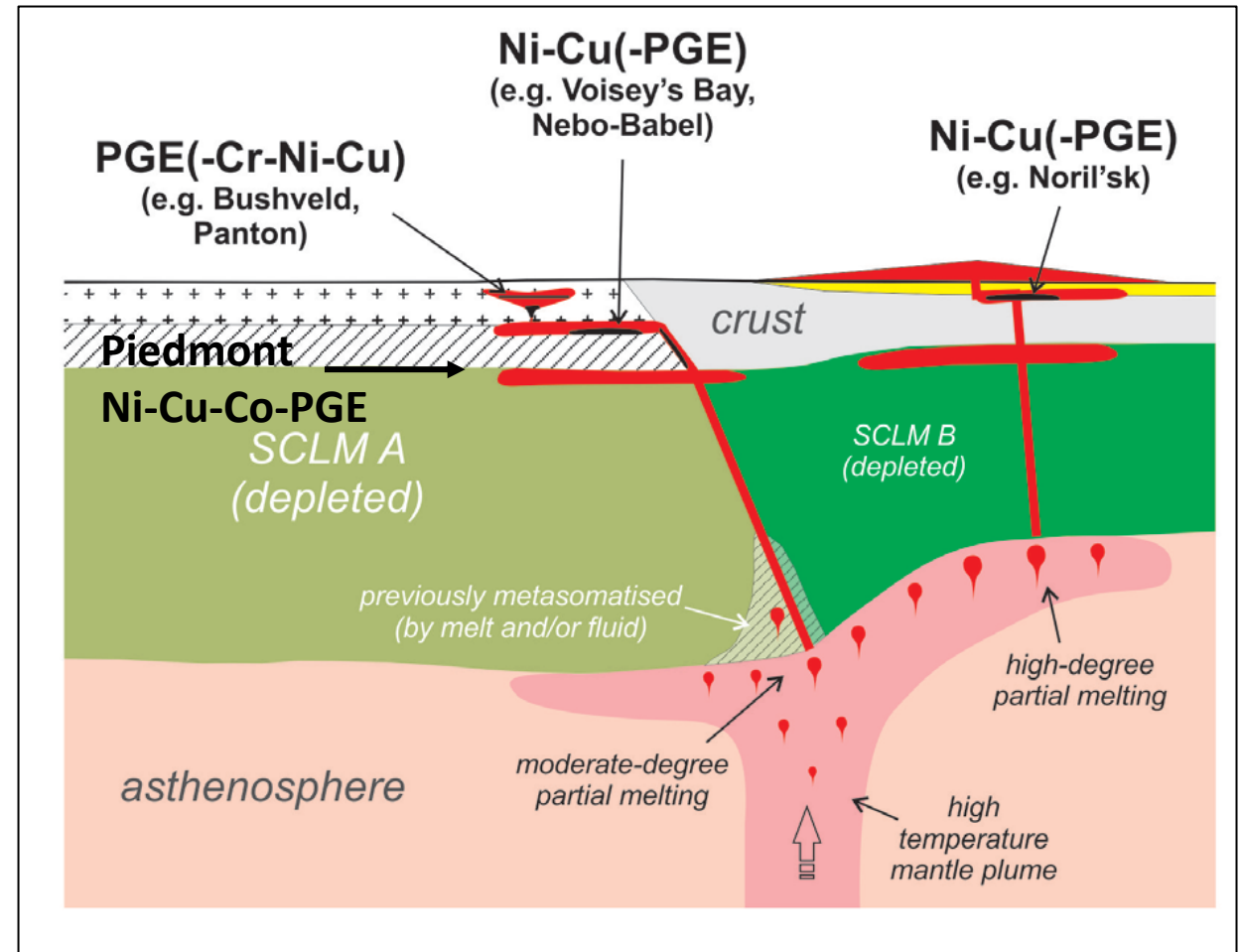
- Alligator has significantly expanded the uranium exploration search space in the Cooper Basin through a recent tenement applications*¹¹ increasing the package to 10,802km².
- This decision was based on reprocessing publicly available seismic data and the recognition of emerging mineral exploration opportunities related to the deeper “granite wash” geology of the underlying Cooper Basin.
- The Big Lake Granite 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.
- Planning of an expanded exploration effort is underway in what is quickly becoming a significant opportunity for the Company.
- Alligator is engaging with the two key indigenous groups in the region, to establish working agreements for access and future opportunities.



Alligator's Big Lake Project tenure showing the extent of the interpreted Big Lake Suite radiogenic granite and the associated “granite wash” apron

Key aspects of the Piedmont Project, northern Italy

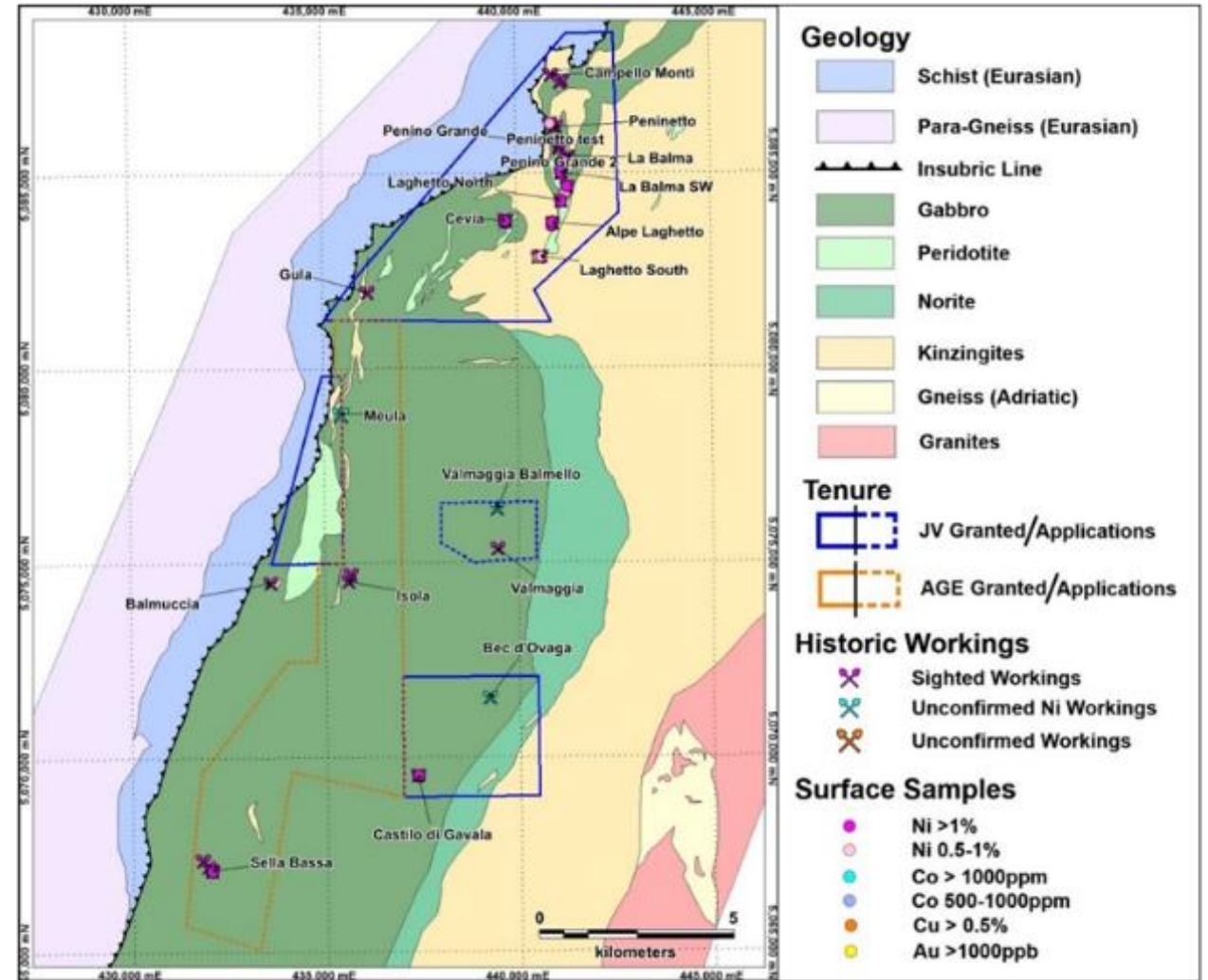
- Mineralisation characteristics are consistent with other magmatic models (low PGE and magmatic sulphur).
- No significant exploration since production from historic mines ceased in the 1940s.
- European jurisdiction – critical minerals focus, close to major infrastructure (100 km NW of Milan, Italy).
- Potential for small, high-grade deposits amenable to underground mining, and possibility for larger scale at depth.
- Layered ultramafic intrusions are associated with mantle-derived magmas from the meeting of tectonic plates in the Italian Alps.
- Mafic-ultramafic sills emplaced at base of continental crust during Permian to Late Triassic extension (Ivrea-Verbano Zone: IVZ) subsequently uplifted and tilted in Alpine Orogeny.



Source: Potential for intrusion-hosted Ni-Cu-PGE sulfide deposits in Australia: A continental-scale analysis of mineral system prospectivity. Record 2016/01. Geoscience Australia, Canberra

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.
- Planned ground EM surveys across the Laghetto prospect targeted for late Q3 2022.
- Proposed regional drone magnetics for continued target development during late 2022.
- Early exploration drilling permits approved for Alpe Laghetto.
- **AGE now has an option to acquire 100% of the projects.**





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	2924-02480654-2A1353533 (markitdigital.com) ; 2924-02503799-2A1365315 (markitdigital.com) and 2924-02520049-2A1373216 (markitdigital.com) ;
1.	10 May 2021	Alligator Partners with Global Uranium Group Traxys	2924-02372956-2A1297261 (markitdigital.com)
2.	26 February 2020	Narbarlek North tenements to proceed to grant	02206728.pdf (weblink.com.au)
3.	16 December 2020	Samphire Uranium Project – Desk Top Study findings	2924-02322873-2A1270492 (markitdigital.com)
4.	19 April 2012	Alligator announces Caramal resource of 6.5 Mlb U308 @ 0.31%	https://www.asx.com.au/asxpdf/20120419/pdf/425pwnq4grbc7v.pdf
5.	17 May 2022	Piedmont Option Agreement Finalisation	2924-02522295-2A1374286 (markitdigital.com)
6A	9 July 2019	Rediscovered Ni Co province in Italy	2019_07_09 Market Update - Re-discovered Ni Co Cu province (markitdigital.com)
6B.	26 July 2018	Alligator’s first Piedmont assays confirm significant mineralisation with grades up to 2.5% Ni and 0.17% Co	https://www.asx.com.au/asxpdf/20180726/pdf/43wsdn8f3tq411.pdf
6C.	14 September 2018	Arnhem Land drilling update and further high-grade Ni Co Cu Au assays at Alligator’s Piedmont project	https://www.asx.com.au/asxpdf/20180914/pdf/43ybd4j8dtpcy6.pdf
7.	23 May 2022	Big Lake Additional Applications	2924-02523830-2A1375062 (markitdigital.com)
8.	8 April 2011	Maiden Resource Estimate	20 June 2007 (asx.com.au)
9.	8 August 2022	First exploration work commences – Nabarlek North Project	02550741.pdf (weblink.com.au)
10.	1 September 2022	Initial Mineral Resource at Blackbush Deposit Targeting In-Situ Recovery	2022-08-31 Resource-ASX announcement
11.	23 May 2022	Big-Lake Uranium Project – Expanded Footprint	02523830.pdf (weblink.com.au)



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: AGE



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