



Resource Extension Drilling Recommences at Samphire Uranium Project, South Australia

Alligator Energy Limited **ASX: AGE (Alligator or the Company)** is pleased to advise that both resource extension and broader exploration drilling has recommenced at the Samphire Uranium Project south of Whyalla, South Australia for the duration of the 2024 calendar year.

Highlights

- **Drilling contractor engaged and on-site** for sustained operations at Samphire throughout 2024 to focus on the execution of a **multi-year exploration program** on targets outlined in AGE's recently announced Exploration Target Range¹. This includes:
 - Drill testing areas adjacent to the limits of the existing Blackbush resource envelope (Figure 1) targeting a further upgrade to the Samphire Project economics **through extending the life of mine** as outlined in AGE's Scoping Study².
 - Drill testing areas interpreted to be highly prospective to host uranium mineralisation, based on the presence of underlying uranium source rocks, overlying or adjacent palaeochannel sediments like those encountered at Blackbush and historical drillholes that have intersected mineralisation.
- AGE's Exploration Target Range identified that only 10% of the prospective uranium system (Blackbush Deposit and portion of Plumbush Prospect) has been well explored, 32% partly drill tested and 58% completely untested indicating the **significant potential for new discoveries in the Project area**.
- All land access and approvals are in place to execute the 2024 program.

Alligator's Managing Director and CEO Greg Hall stated: *"The Samphire Uranium Project has been shown through our recent scoping study to represent an economically significant project in the current and improving uranium market. This study was however limited to a targeted production profile from the declared Blackbush JORC compliant resource.*

As announced previously, the next steps are to enhance this project through adjacent and regional exploration. We are pleased to advise that, in line with our plans, drilling has recommenced at the Blackbush deposit to target enlarging and extending the overall total JORC Mineral Resource Estimate for the Samphire Project. This year-round drilling program, with the exception of planned breaks around the pastoralists lambing season in May, is an important and positive start to a busy 2024 for Alligator Energy."

¹ AGE ASX Release 7 December 2023. <https://wcsecure.weblink.com.au/pdf/AGE/02751150.pdf>

² ASX Announcement 14 December 2023. [02753924.pdf \(weblink.com.au\)](https://www.alligatorenergy.com.au/02753924.pdf)

Commencement of Drilling

AGE through its 2021-2023 drill programs at the Blackbush Deposit and extensive data review of over 1,000 historical drillholes has identified several target areas that remain open and untested. Drilling is now underway to explore several of these target areas which comprise part of a multi-year exploration program outlined in AGE's recently announced Exploration Target Range². The 2024 program will be initially focussing on:

- 1) Drill testing areas immediately adjacent to the limits of the existing Blackbush resource envelope to continue to upgrade potential project economics - being the open channels indicated with blue arrows in **Figure 1**, and
- 2) Drill testing an extension of Blackbush being target areas 1 & 2 (Blackbush Extensions 1 & 2) identified in AGE's Exploration Target Range (see purple circles marked in **Figure 1**). These are prospective to host additional uranium mineralisation based on historical drillholes that have intersected mineralisation, the presence of underlying uranium source rocks and overlying palaeochannel sediments.

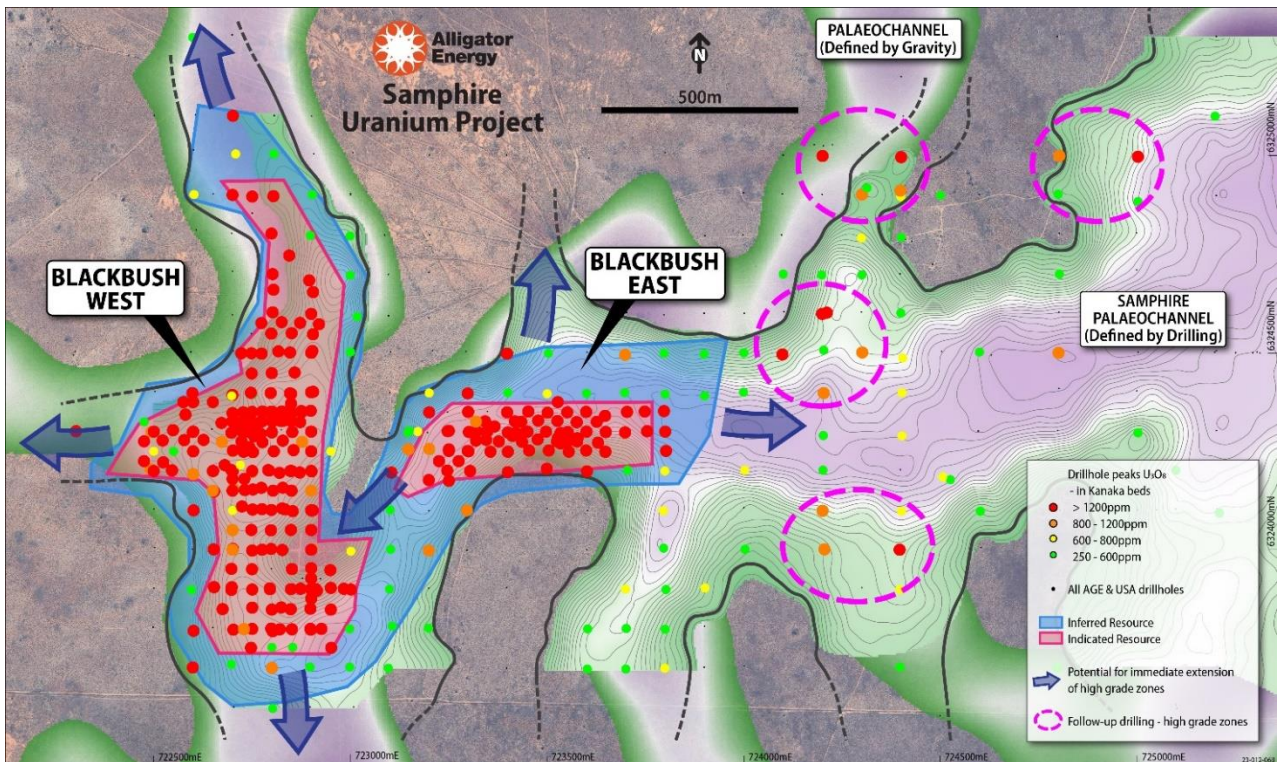


Figure 1: Updated Inferred resource area outline (blue) and Indicated Resource area outline (red) showing historical and AGE drillholes focussed within the Inferred Resource envelope. Further resource extension potential shown in arrows and pink circles.

Work undertaken to derive the Exploration Target Range showed that with 64 kms of interpreted palaeochannel strike length (**Figure 2**), only 10% of the prospective system (Blackbush Deposit and portion of Plumbush Prospect) have been well explored, with a further 30% partly drill tested. To date, 58% (over 37 kms) of the prospective areas of the palaeochannel system remain completely untested, indicating the significant potential for new discoveries in the Project area.

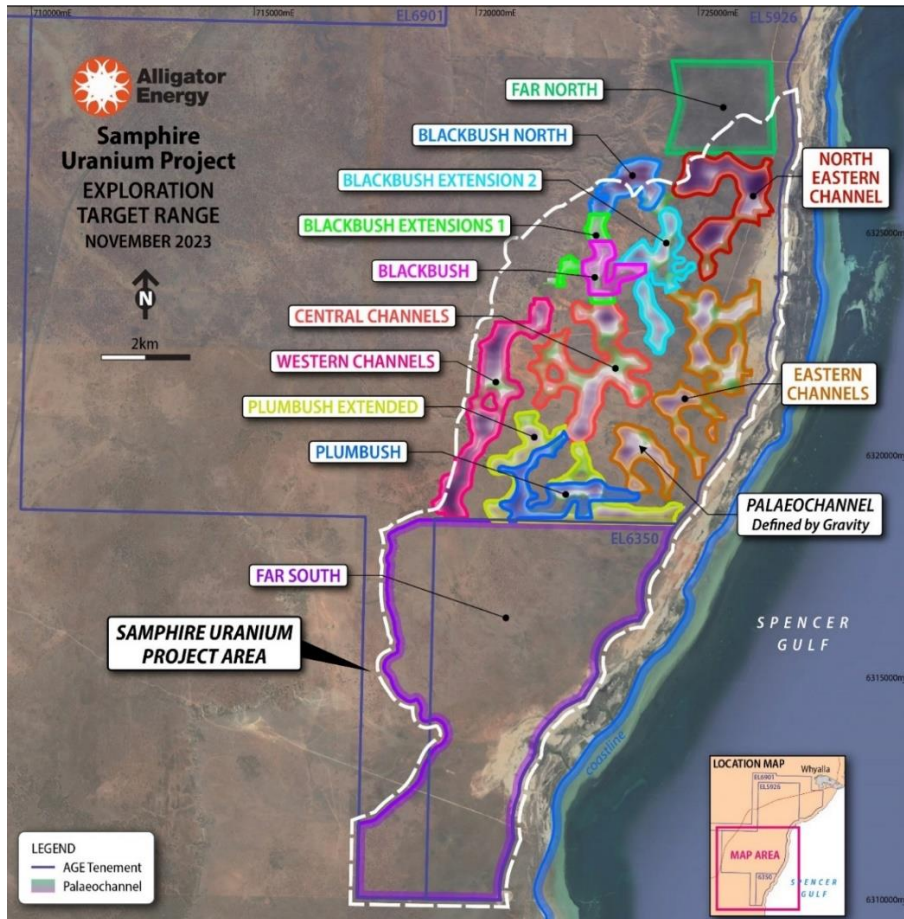


Figure 2: Map highlighting the 11 target area locations within the Samphire Uranium Project Area.

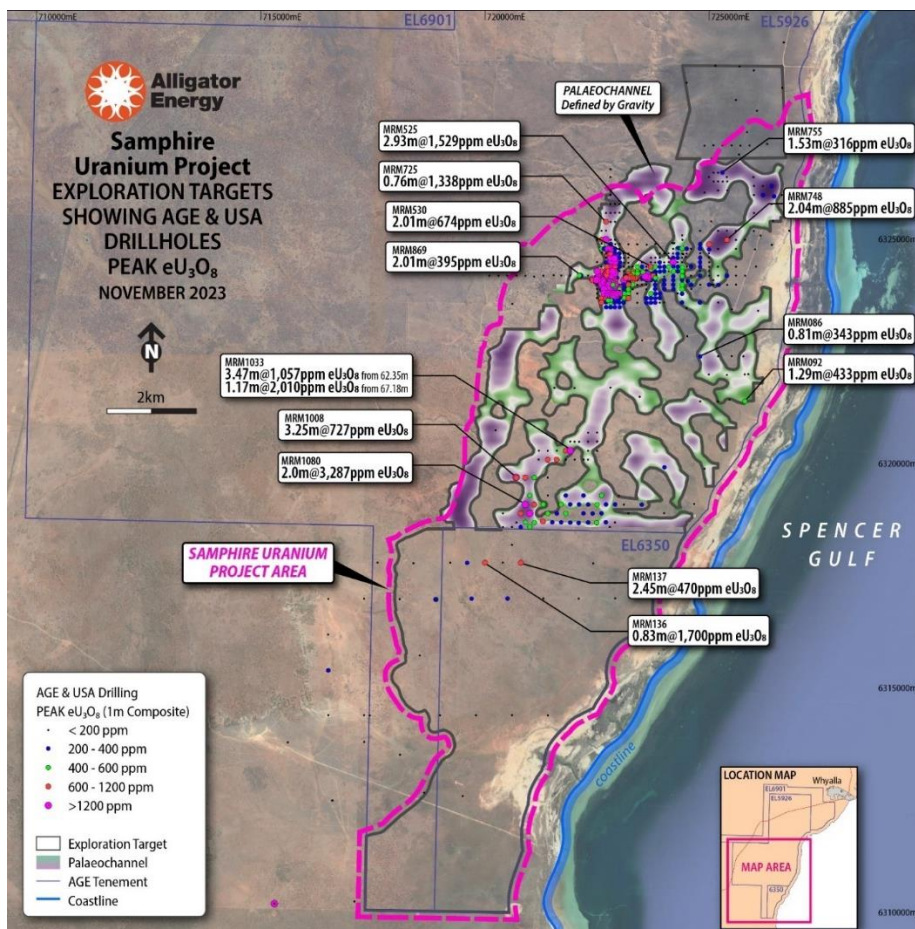


Figure 3: Samphire Project Area highlighting encouraging gamma eU_3O_8 results intersected from historical drilling in Kanaka Bed sands within the Samphire Uranium Project Area.

This announcement has been authorised for release by the Alligator Energy CEO

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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 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 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

