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Alligator Energy

ASX Announcement

1 May 2024

Extension of Uranium Mineralisation at Samphire Uranium Project Blackbush Deposit

Alligator Energy Limited **(ASX: AGE, 'Alligator'** or 'the **Company')** is pleased to announce significant uranium mineralisation intersections from its resource extension drilling program at the Samphire Uranium Project, near Whyalla, South Australia.

Highlights

- **Significant uranium intersections encountered in roll fronts in Alligator's resource extension drilling at wider Blackbush deposit target areas.**
  - A total of 49 holes drilled for 4,089m from late Jan to mid-April 2024.
  - Results support the exploration strategy outlined in Alligator's Exploration Target Range[1].
  - Continued refinement in understanding the uranium roll front morphology at Blackbush is delivering step out targets for the next round of drilling, re-commencing mid-May.
  - Significant uranium mineralisation intersections include (see *Figure 1* for full detail):
    - BBRM24-235 **4.44 meters at 0.43% (4,370ppm) pU3O8 from 61.38m (GT 19,403)[3]**
    - BBRM24-222 **1.47 meters at 0.40% (3,992ppm) pU3O8[2] from 60.68m (GT 5,868)**
    - BBRM24-224 **0.75 meters at 0.64% (6,450ppm) pU3O8 from 63.57m (GT 4,837)**
    - BBRM24-239 **1.17 meters at 0.30% (2,971ppm) pU3O8 from 64.24m (GT 3,476)**
    - BBRM24-238 **0.60 meters at 0.37% (3,735ppm) pU3O8 from 67.50m (GT 2,241)**
    - BBRM24-225 **1.72 meters at 0.12% (1,170ppm) pU3O8 from 64.32m (GT 2,012)**
      0.59 meters at 0.28% (2,756ppm) pU3O8 from 66.71m (GT 1,626)
    - BBRM24-217 **3.07 meters at 0.05% (493ppm) pU3O8 from 58.47m (GT 1,514)**
    - BBRM24-220 **1.32 meters at 0.10% (978ppm) pU3O8 from 56.10m (GT 1,291)**
- **On return to the field the focus will be on further investigation of Extension Area 2 and assessing the expansion potential of the Blackbush West mineralisation into the Blackbush North Target Area (Figure 2).**
- **Drilling contractor engaged for sustained operations at Samphire for the remainder of 2024 with the objective of updating the JORC Resource Estimate in Q4.**
- **Ground gravity survey results are proving an invaluable tool for targeting roll-front uranium deposits in the Samphire paleochannels.**

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[1] *AGE ASX Release 7 December 2023. 02751150.pdf (weblink.com.au)*
[2] *Note: pU3O8 denotes that the grade has been determined by PFN downhole logging.*

Alligator's CEO Greg Hall stated: *"We are pleased to see Blackbush deposit mineralisation extending within the immediate target areas of the current resource to the west and east initially. The resource geology team is becoming adept at finding the redox boundary between oxidised and reduced sands, and hence quickly narrowing the search for the potentially economic roll front structures. In some instances, we are aided by the great exploration work done by the predecessor company historical gamma drilling intersections."*

Samphire 2024 Drilling Program Rationale

Exploration drilling re-commenced at Samphire late January 2024 to investigate potential extensions to uranium mineralisation in the Kanaka Bed sands within the Samphire palaeochannel system surrounding the Blackbush deposit. Initial focus has been on Blackbush Extensions 1 and 2 Target Areas (Figure 2). To date, forty-nine (49) holes for 4,089m have been drilled.

For background, the palaeochannels are ancient structures eroded into the underlying granites (being the source of uranium), where the Kanaka bed sands have been deposited at approx. 60 to 80 m depth. Not all these Kanaka bed sands are mineralised. Rather the dissolved uranium moves through the sand pore spaces with the saline groundwater within sand layers until it encounters a reducing medium (e.g. pyrite, carbonaceous matter) when the uranium deposits out around the sand grains. These deposition structures are called "roll fronts" and are the main structures being targeted during resource extension drilling.

Blackbush Extensions 1 Target Area

Drilling within the Blackbush Extensions 1 target area focussed on the palaeochannel that tracks west from Blackbush West (Figures 1 & 2). Holes were drilled at 25m centres on 50m spaced drill lines to test the multiple mineralised roll fronts interpreted to extend ~250m from the last line of holes drilled in 2023. While some intercepts listed below and in Figure 1 did not return high grades, these holes remain significant as they confirm roll fronts exist in this area and warrant further investigative drilling. Drillhole BBRM24-235 (**4.44 meters at 4,370ppm pU3O8 from 61.38m)** is an example of stacked roll fronts in this area.

Significant (for grade or mineralogy continuity) uranium intercepts in this area, include:

- BBRM24-202 **0.96 metres at 0.07% (737 ppm) pU3O8 from 63.26m (GT 708)**
- BBRM24-222 **1.47 meters at 0.40% (3,992ppm) pU3O8 from 60.68m (GT 5,868)**
- BBRM24-224 **0.75 meters at 0.64% (6,450ppm) pU3O8 from 63.57m (GT 4,837)**
- BBRM24-225 **1.72 meters at 0.12% (1,170ppm) pU3O8 from 64.32m (GT 2,012)**
  0.59 meters at 0.28% (2,756ppm) pU3O8 from 66.71m (GT 1,626)
- BBRM24-231 **0.53 meters at 0.16% (1,654ppm) pU3O8 from 71.08m (GT 877)**
- BBRM24-235 **4.44 meters at 0.43% (4,370ppm) pU3O8 from 61.38m (GT 19,403)**
- BBRM24-237 **0.61 meters at 0.04% (455ppm) pU3O8 from 62.53m (GT 278)**
  1.12 meters at 0.05% (507ppm) pU3O8 from 64.7m (GT 568)
- BBRM24-238 **0.6 meters at 0.37% (3,735ppm) pU3O8 from 67.5m (GT 2,241)**
- BBRM24-239 **1.17 meters at 0.3% (2,971ppm) pU3O8 from 64.24m (GT 3,476)**

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Blackbush Extension 2 Target Area

Blackbush Extension 2 Area is located approximately 600m from the existing Blackbush Inferred Mineral Resource envelope. Drillholes were sited based on historical (pre-2020) gamma intercepts in Kanaka Sands in the Samphire palaeochannel. Very encouraging uranium intercepts and roll front signatures were encountered in this area warranting follow-up on return of drilling operations in mid-May. Most notably the 3m thick roll front intersected by hole BBRM24-217 (**3.07 meters at 0.05% (493ppm) pU3O8 from 58.47m**) is significant. Other holes encountering uranium mineralisation within roll fronts to be followed up in the coming months include:

- BBRM24-220 **1.32 meters at 0.10% (978ppm) pU3O8 from 56.1m (GT 1,291)**
- BBRM24-217 **3.07 meters at 0.05% (493ppm) pU3O8 from 58.47m (GT 1,514)**
- BBRM24-210 **0.60 meters at 0.01% (91ppm) pU3O8 from 68.18m (GT 55)**
- BBRM24-211 **0.54 meters at 0.014% (148ppm) pU3O8 from 66.86m (GT 80)**
  0.5 meters at 0.023% (239ppm) pU3O8 from 68.14m (GT 120)

Next Steps

On return to the field, post the pastoral lambing season, the focus for drilling will be on further investigation of Extension Area 2 and assessing the expansion potential of the Blackbush West mineralisation into the Blackbush North target area.

Drilling carried out by Alligator at Samphire continues to validate the use of ground gravity surveys to map the target palaeochannels within the Project area. This has thus far returned high success rates in intersecting the host palaeochannel in the first pass of drilling. Armed with this knowledge the Exploration team is able to focus on discovery of uranium roll fronts from the first hole drilled in a new area.

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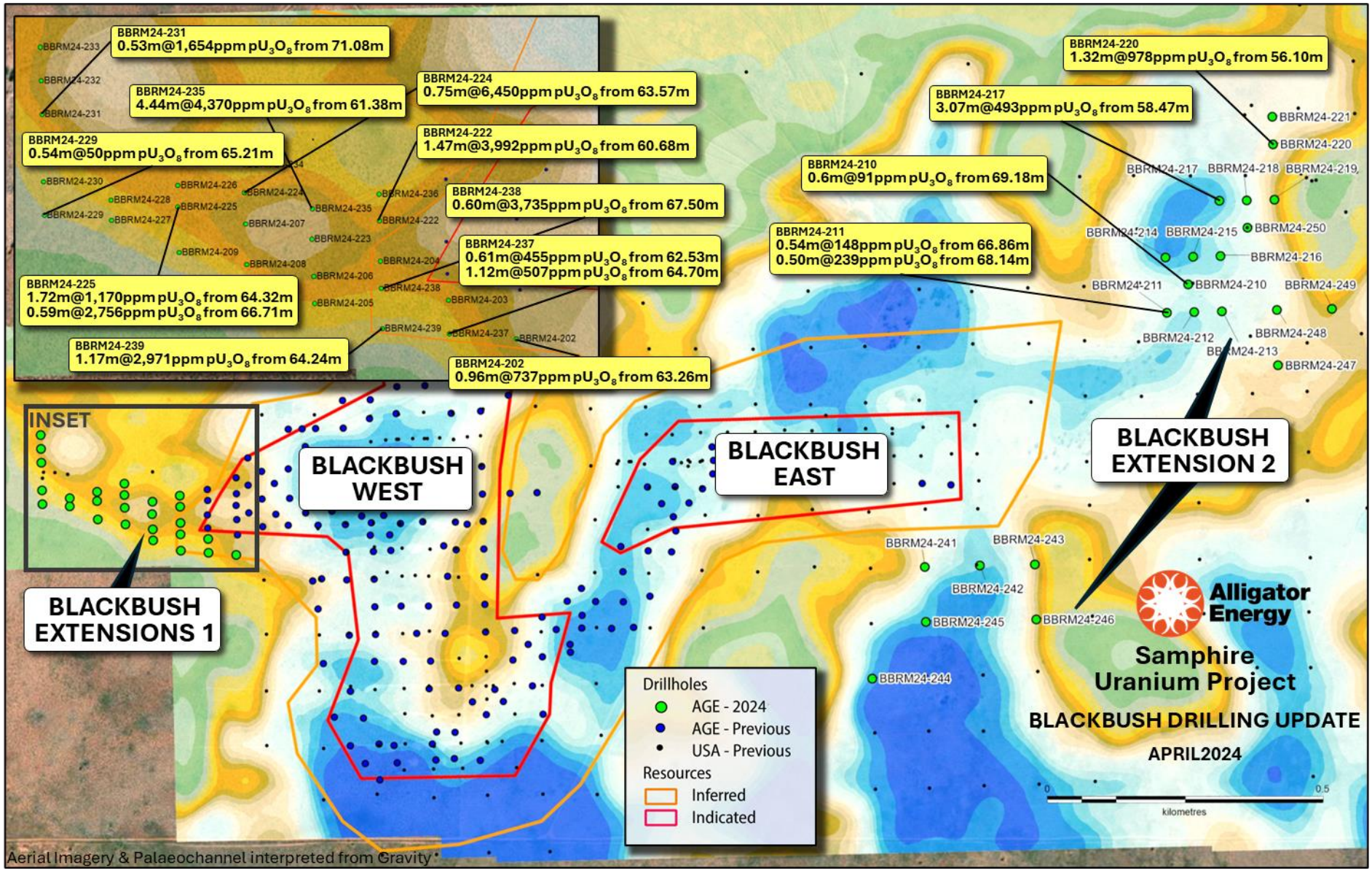

Figure 1: All 2024 drilling carried to date (in green dots). Uranium intercepts shown are all hosted within the Kanaka Bed sands.

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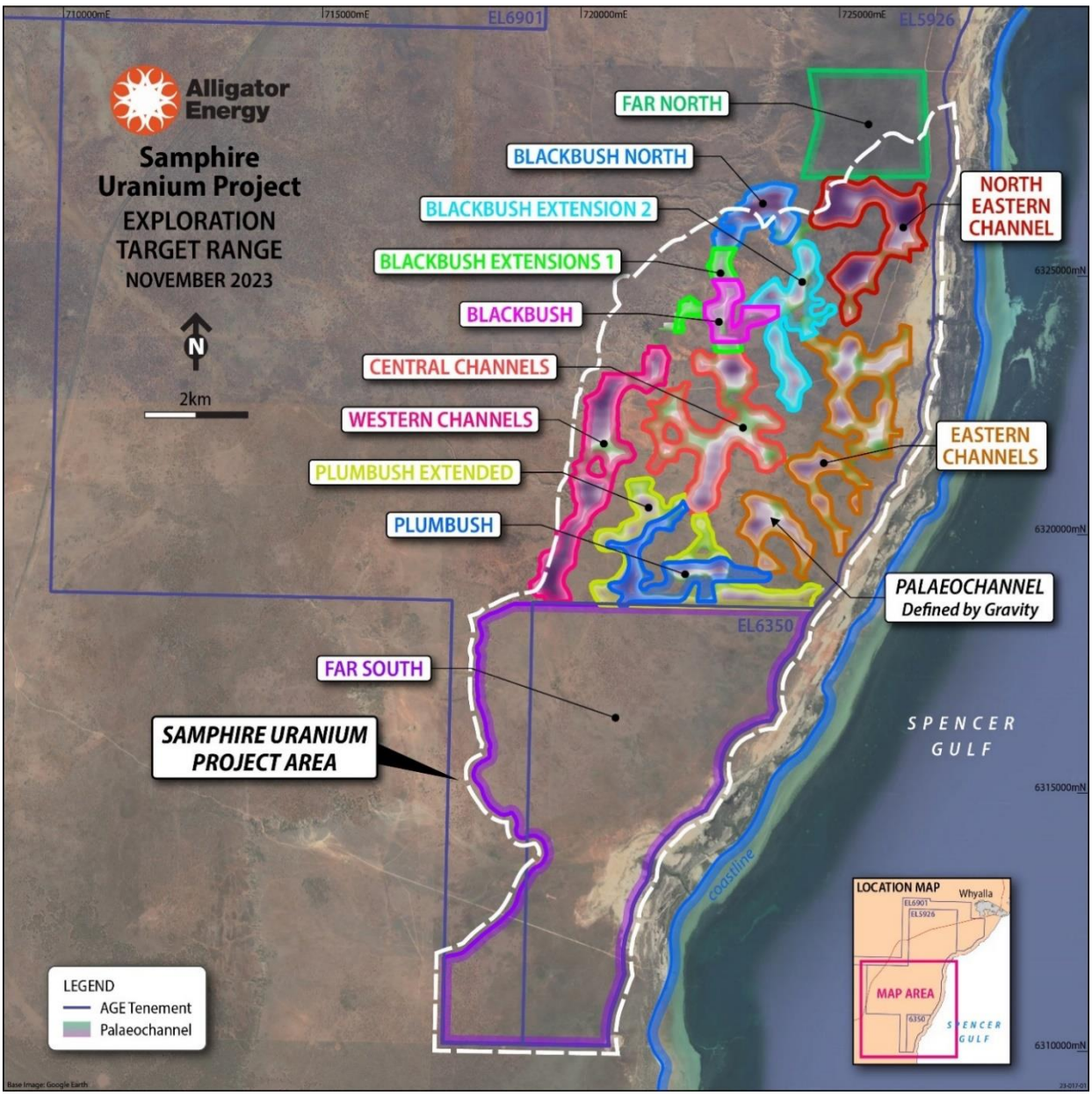

Figure 2: Map highlighting the 11 Exploration Target Area locations within the Samphire Uranium Project Area (ASX Release 7 December 2023).

This announcement was authorised for release by the 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.

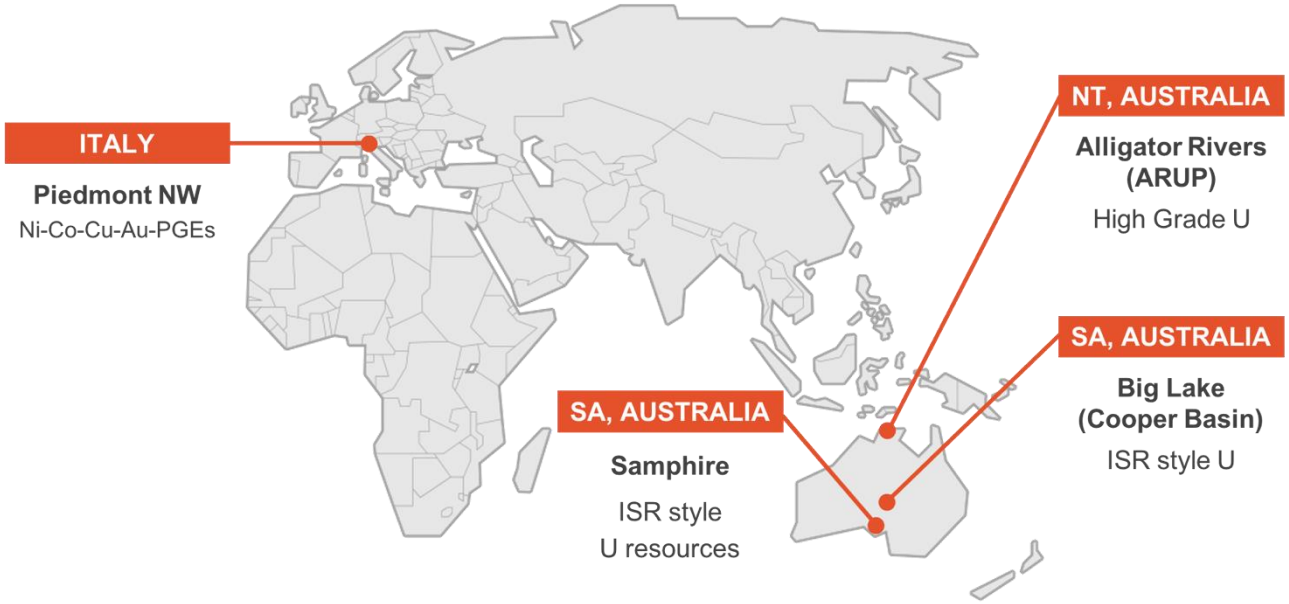
Competent Person's Statement

Information in this report is based on current and historic 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



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APPENDIX 1 - In accordance with ASX Listing Rule 5.7.2 the Company provides the following information.

Table 1: All significant uranium intersections from PFN logging (pU_3O_8) of the rotary mud drilling program summarised above 0.5m minimum thickness, ≥ 0.010% pU3O8 (100ppm pU3O8) with internal dilution 0.25m.

Note: pU3O8 grades have been acquired by a Prompt Fission Neutron Tool (PFN22) which was calibrated at the Australian Mineral Development Laboratories (AMDEL) calibration facility (Adelaide) and then checked for repeatability by regularly logging a fibreglass-cased calibration hole onsite (MRC002,723703E, 6324350N (GDA94), depth 84.5m). All pU_3O_8 grades were calculated and corrected for borehole size from caliper data taken every 5cm downhole and using the equation *{2.737*({EPITHERM}/{THERMAL}-0.02)}*{-1*Power(10,-06)*Power({CAL},2)+0.0097*{CAL}-0.0313}*

Summarised above 0.5m minimum thickness, ≥ 0.010% pU3O8 (100ppm pU3O8) with internal dilution 0.25m.

HoleID	Easting (GDA94,Z53)	Northing (GDA94,Z53)	RL	Azimuth	Dip	Hole Depth (m)	Depth From (m)	Depth To (m)	Thickness (m)	pU3O8 (%)	pU3O8 (ppm)	Grade x Thickness (m%)	Grade x Thickness (mppm)
BBRM24-202	722450	6324150	24.4	0	-90	78	63.26	64.22	0.96	0.073670	737	0.0707	708
BBRM24-203	722400	6324180	24.9	0	-90	89	No significant intersections						
BBRM24-204	722350	6324210	25.3	0	-90	82	No significant intersections						
BBRM24-205	722300	6324180	25.5	0	-90	78	No significant intersections						
BBRM24-206	722300	6324200	25.6	0	-90	84	No significant intersections						
BBRM24-207	722249	6324241	24.3	0	-90	84	No significant intersections						
BBRM24-208	722247	6324212	24.2	0	-90	78	No significant intersections						
BBRM24-209	722200	6324220	27.1	0	-90	73	No significant intersections						
BBRM24-210	724192	6324604	12.0	0	-90	96	69.18	69.78	0.6	0.009111	91	0.0055	55
BBRM24-211	724151	6324558	12.0	0	-90	86	66.86	67.4	0.54	0.014795	148	0.008	80
BBRM24-211	724151	6324558	12.0	0	-90	86	68.14	68.64	0.5	0.023943	239	0.012	120
BBRM24-212	724197	6324557	11.7	0	-90	94	No significant intersections						
BBRM24-213	724246	6324551	11.3	0	-90	94	No significant intersections						
BBRM24-214	724140	6324654	12.4	0	-90	84	No significant intersections						
BBRM24-215	724196	6324648	12.0	0	-90	90	No significant intersections						
BBRM24-216	724250	6324650	11.8	0	-90	86	No significant intersections						
BBRM24-217	724251	6324750	12.2	0	-90	87	58.47	61.54	3.07	0.049306	493	0.1514	1514
BBRM24-218	724299	6324752	11.9	0	-90	86	No significant intersections						
BBRM24-219	724350	6324750	11.5	0	-90	70	No significant intersections						
BBRM24-220	724347	6324848	12.6	0	-90	68	56.1	57.42	1.32	0.097834	978	0.1291	1291
BBRM24-221	724347	6324903	13.2	0	-90	76	No significant intersections						
BBRM24-222	722350	6324240	25.5	0	-90	81	60.68	62.15	1.47	0.399239	3992	0.5869	5868
BBRM24-223	722299	6324228	27.3	0	-90	81	No significant intersections						
BBRM24-224	722249	6324263	24.4	0	-90	84	63.57	64.32	0.75	0.644980	6450	0.4837	4837
BBRM24-225	722197	6324252	25.0	0	-90	84	64.32	66.04	1.72	0.117008	1170	0.2013	2012
BBRM24-225	722197	6324252	25.0	0	-90	84	66.71	67.3	0.59	0.275633	2756	0.1626	1626
BBRM24-226	722197	6324273	25.1	0	-90	90	No significant intersections						
BBRM24-227	722148	6324260	25.6	0	-90	72	No significant intersections						
BBRM24-228	722148	6324236	25.6	0	-90	66	No significant intersections						
BBRM24-229	722098	6324246	26.2	0	-90	66	65.21	65.75	0.54	0.004964	50	0.0027	27
BBRM24-230	722098	6324270	26.7	0	-90	72	No significant intersections						
BBRM24-231	722097	6324322	27.4	0	-90	78	71.08	71.61	0.53	0.165357	1654	0.0876	877
BBRM24-232	722099	6324351	27.7	0	-90	84	No significant intersections						
BBRM24-233	722100	6324375	26.8	0	-90	91	No significant intersections						
BBRM24-234	722247	6324283	24.6	0	-90	81	No significant intersections						
BBRM24-235	722298	6324252	23.6	0	-90	77	61.38	65.82	4.44	0.436989	4370	1.9402	19403
BBRM24-236	722346	6324266	23.0	0	-90	75	No significant intersections						
BBRM24-237	722400	6324155	16.1	0	-90	74	62.53	63.14	0.61	0.045515	455	0.0278	278
BBRM24-237	722400	6324155	16.1	0	-90	74	64.7	65.82	1.12	0.050712	507	0.0568	568
BBRM24-238	722350	6324190	25.2	0	-90	80	67.5	68.1	0.6	0.373451	3735	0.2241	2241
BBRM24-239	722350	6324160	15.0	0	-90	84	64.24	65.41	1.17	0.297087	2971	0.3476	3476
BBRM24-240	722300	6234275	16.3	0	-90	74	No significant intersections						
BBRM24-241	723700	6324100	25.0	0	-90	77	No significant intersections						
BBRM24-242	723800	6324100	25.1	0	-90	100	No significant intersections						
BBRM24-243	723900	6324100	24.7	0	-90	96	No significant intersections						
BBRM24-244	723600	6323900	12.8	0	-90	96	No significant intersections						
BBRM24-245	723700	6324000	13.0	0	-90	99	No significant intersections						
BBRM24-246	723900	6324000	12.3	0	-90	84	No significant intersections						
BBRM24-247	724350	6324450	14.0	0	-90	90	No significant intersections						
BBRM24-248	724350	6324550	27.5	0	-90	102	No significant intersections						
BBRM24-249	724450	6324550	28.2	0	-90	92	No significant intersections						
BBRM24-250	724300	6324700	28.4	0	-90	96	No significant intersections						

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JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg 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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.*	• Rotary mud drilling was used to obtain 2m samples in the non-target area and 1m mud /chip samples within the target area. • Downhole wireline logging using a Prompt Fission Neutron (PFN) tool was used to calculate pU_3O_8 from the ratio of epithermal and thermal neutrons. • The PFN used in this program was calibrated using industry standard procedures at the Australian Mineral Development Laboratories (AMDEL) calibration facility (Adelaide).
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).*	• All holes were drilled by Watson Drilling with typical hole diameter being 6" (152.4mm). • All holes were vertical.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• Caliper data show that borehole size increases in zones of unconsolidated sands, hence all pU_3O_8 grades were calculated and corrected for borehole size from caliper data taken every 5cm downhole using the equation {2.737*({EPITHERM}/{THERMAL}-0.02)}*{-1*Power(10,-06)*Power({CAL},2)+0.0097*{CAL}-0.0313}
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support*	Chip/mud samples were collected 2m in non-target areas and then 1m in the zones of interest (i.e. the target Kanaka Beds).

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Criteria	JORC Code explanation	Commentary
	appropriate Mineral Resource estimation, mining studies and metallurgical studies. • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• All samples are geologically logged compliant with industry standards which included lithology, mineralogy, grain size/rounding/sorting, colour, redox. • All samples were photographed using a high-resolution camera.
Sub-sampling techniques and sample preparation	• *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.*	• The depth of investigation of the PFN tool approximately 25-40 cm radius around the borehole to allow for accurate measurement of the ratio of epithermal/thermal neutrons for pU3O8 calculations. • QA/QC of pU_3O_8 data included repeatability checks by regularly logging a fibreglass-cased calibration hole onsite (MRC002,723703E, 6324350N (GDA94), depth 84.5m). MRC002 has sufficient assay data in the target zone to compare/calibrate PFN data. • Repeat runs in rotary mud holes that remained open after drilling for sufficient time to allow for PFN logging was also performed.
Quality of assay data and laboratory tests	• *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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	Three geophysical tools were used: • Prompt Fission Neutron Tool (PFN) serial number 22 manufactured by Geoinstruments Inc, Nacogdoches, Texas. Neutron generator 78-80kV, logging at 0.5m/minute. • Multisurvey tool (MST) serial number 24 manufactured by Geoinstruments Inc, Nacogdoches, Texas. Measures 16Normal, 64Long borehole resistance, Point Resistance, and Self Potential and uncalibrated natural gamma for depth matching. • GeoVista 3-arm caliper, serial number 5589, measures the bore-hole size in millimetres for the length of the bore hole.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• QA/QC of pU_3O_8 data included repeatability checks by regularly logging a fibreglass-cased calibration hole onsite (MRC002,723703E, 6324350N (GDA94), depth 84.5m). MRC002 has sufficient assay data in the target zone to compare/calibrate PFN data. • Natural gamma (on the caliper tool) was used for depth matching the PFN. • No wireline stretch was observed during the

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Criteria	JORC Code explanation	Commentary
		program.
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Drillholes are sited using a Garmin handheld GPS • Drilled holes are surveyed Leica iCON GPS 60 which uses the 4G network to obtain corrections from SmartNet base stations (Continuously Operating Reference Stations (CORS)) located around Whyalla. The SmartNet corrections result in RTK RMS accuracy of 10-20mm in XY and 20-30mm in Z. • Grid system GDA94 Projection 53H
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• Drill spacing varies from 50x100m, 200x200m, 50 x 25m and 200 x 200m centres as program was designed to validate historical drilling and infill where there is sparse historical information. • pU3O8 intercepts calculated above 0.5m minimum thickness, >0.025% pU_3O_8 (250ppm pU3O8) with internal dilution 0.25m • No compositing was applied.
Orientation of data in relation to geological structure	• *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.*	• The Samphire mineralisation is interpreted to be contained in horizontal to sub-horizontal sequence of sediments and underlying weathered granite. This interpretation is derived from the significant historic drilling and geological interpretation of the area. All drillholes are vertical which is appropriate for the orientation of the mineralisation
Sample security	• *The measures taken to ensure sample security.*	• Rotary mud/chip samples are stored in AGE's secured storage facility in Whyalla.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	No audits or reviews undertaken of sampling techniques to date.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *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*	• The JORC2012 compliant Blackbush deposit, referenced historical drilling and geophysics covering the Samphire project are located on Exploration Licence EL5926 originally granted 20th November 2016 for a term expiring 2018. The licence was subsequently renewed for a further 3 years expiring in November 2021. A further renewal has been lodged with DEM and is pending.

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Criteria	JORC Code explanation	Commentary
	operate in the area.	• EL5926 is 100% held by S Uranium Pty Ltd a wholly owned subsidiary of Alligator Energy Ltd. • The land covering the licence area is Crown Lease; consisting of several leases over 2 pastoral stations.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Samphire Uranium Limited (SUL), previously UraniumSA (ASX: USA) historically conducted almost all previous exploration within EL5926 defining the Plumbush (JORC2004) and Blackbush (JORC2012) resources and all relevant drilling, geophysics except ground magnetics conducted by AGE in 2021. • USA conducted preliminary Insitu Recovery (ISR) hydrogeological testwork on the Blackbush deposit with pump testing and hydrogeological modelling. • Third party drilling is confined to one rotary mud hole for lignite exploration located in the southeast of the licence area.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Mineralisation is dominantly sediment hosted uranium within the Eocene Kanaka Beds. Minor amounts of mineralisation are present in the overlying Miocene Melton sands (informal name) and underlying Samphire granite (informal name)
Drill hole Information	• *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:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *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.*	• Drillhole information that relates to historic drilling was previously reported by Uranium SA (ASX: USA) in ASX release "Samphire Project Update" 27 September 2013. • Drillhole information relating to post 2021 are summarised in Table 1 Appendix 1 of the following releases: ○ ASX release "Exceptional High Grade Uranium Results – Samphire Project" March 29, 2022 ○ ASX release "Resource Drilling complete with highest grades found so far at Samphire Uranium Project" November 23, 2022 ○ ASX release "Samphire Drilling Update" June 8, 2023. ○ Table 1 Appendix 1 of this release.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate*	**Rotary Mud** pU3O8 intercepts for both rotary mud holes are calculated above 0.5m minimum thickness, >0.025% pU_3O_8 (250ppm pU3O8) with internal dilution 0.25m

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Criteria	JORC Code explanation	Commentary
	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.*	
Relationship between mineralisation widths and intercept lengths	• *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 (eg 'down hole length, true width not known').*	• Mineralised widths are considered true widths or close to true widths due to the generally flat lying orientation of the mineralisation and use of perpendicular vertical drilling.
Diagrams	• *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.*	• Results are reported in appropriate diagrams and tables within this release.
Balanced reporting	• *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.*	• All mineralised intercepts using a cut-off >250ppm U_3O_8, minimum thickness of 0.5m with internal dilution of 0.25 metres measured by PFN have been reported. • All relevant PFN grade data presented in Table 1.
Other substantive exploration data	• *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.*	• Geological observations have been reported in context of reported intersections.
Further work	• *The nature and scale of planned further work (eg 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.*	Program for 2024 includes: • Further exploration drilling outside of the Blackbush Mineral Resource,