

## Alligator Rivers Projects – 2024 Exploration Results

Alligator Energy (ASX: AGE, ‘Alligator’ or ‘the Company’) is pleased to announce the results of its 2024 exploration program in the Alligator Rivers Uranium Province (“ARUP”) spanning the Nabarlek North (NN) and Tin Camp Creek (TCC) Projects.

### Highlights

- Completion of 3,526m RC drilling across the Nabarlek North Project spanning 22 holes.
- New mineralisation occurrence identified at Bully (~4 kms east of U40) with 1m @ 108ppm U<sub>3</sub>O<sub>8</sub> in NNRC24-019 from 83m.
  - While relatively small, its identification marks a new U occurrence completely masked by Cretaceous cover along interpreted structure
- Surface sampling has identified multiple U anomalies across both the Nabarlek North and TCC Projects including 4,120ppm U<sub>3</sub>O<sub>8</sub> at the historic Gorrunghar Prospect.
- U40<sup>1</sup> extension follow-up drilling has identified further mineralisation extending into the Company’s tenure with 5 of 7 holes returning anomalous U<sub>3</sub>O<sub>8</sub>, with peak results of:
  - 3m @ 260ppm U<sub>3</sub>O<sub>8</sub> in NNRC24-031 from 45m (including 1m @ 570ppm)
- Structural and geological interpretation of 2024 airborne Magnetic and Radiometric survey remains ongoing, with key features being identified for reconnaissance in 2025.
- Notable surface sampling results in other commodities include 3.16% Total Rare Earth Oxides (TREO) and grab samples for High Purity Silica (HPS) returning 97.84% SiO<sub>2</sub>.

All results are currently being integrated with historic and AGE data to progress the Alligator Rivers Projects exploration strategy for 2025 and beyond.

**Greg Hall, Alligator CEO, said:** “The ARUP team have delivered an excellent generative program through the field work in 2024 and subsequent assay results received in Q1 2025. The identification of a new uranium mineral occurrence below cover and 4kms away from known mineralisation is no small achievement in this challenging Province and potentially opens up a large structural corridor for future investigation.

*The team have also undertaken some solid technical interpretation and database consolidation work following acquisition of this new data, and the Rare Earths and High Purity Silica results also represent some interesting insights to critical minerals potential in the province. The recent Boss Energy announcement brings a fourth significant player into the Region and continues to highlight the interest and potential of this world class uranium province.”*

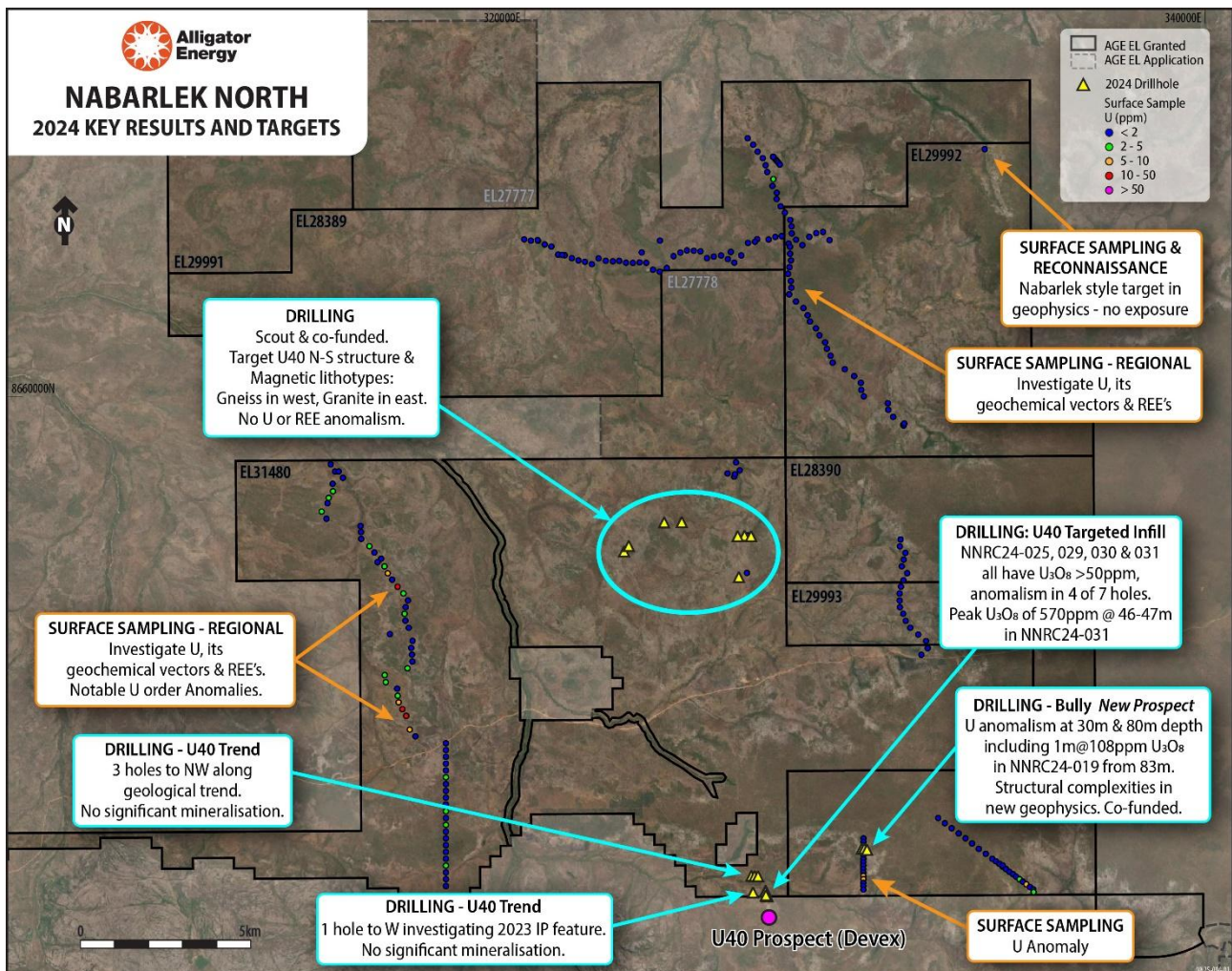
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<sup>1</sup> DevEx Resources Ltd ASX Release 6 December 2023, “Deep, High-Grade Uranium Intersected at U40” [61185041.pdf](#)

## Key Results from the 2024 Nabarlek North RC Drilling Program

As part of the 2024 Nabarlek North exploration program, a 22 hole 3,526m RC drilling program was completed. Drilling was targeted across three exploration prospects, with 8 holes to the north of previous exploration and 3 holes at the newly identified Bully prospect all supported by the NTs Resourcing the Territory co-funding program. A further 11 holes were planned to test continuation of the U40 prospect and to understand the structural and geological controls on this system. Seven holes were directly planned along the U40 mineralisation trend, 1 hole adjacent to the west targeting an AGE 2023 IP anomaly and 3 holes further NW along geological strike. All holes were sampled and assayed using a 1 m sample every 15 metres at standardised fifteen-meter intervals from surface to total depth in combination with selected interval samples based on geology and downhole gamma / scintillometer results.

Of the 7 holes drilled along the U40 mineralisation trend, 5 identified minor anomalism (defined as greater than 25ppm and less than 100ppm  $U_3O_8$ ), above typical background levels of 0-5ppm  $U_3O_8$ . This has extended the structural strike length over 130m north and has included a peak interval of 570ppm  $U_3O_8$  in NNRC24-031. Key results from drilling can be seen below in **Figure 1** with a table of all drill holes and results in **Table 1 (Appendix 1)**.



**Figure 1.** Plan view of AGE's 2024 RC drilling and surface programs and results at the Nabarlek North Project.

Figure 1 above highlights key drilling results at U40 mineralisation trend and the newly identified Bully mineralisation. The latter is an exciting development, identifying a new mineral occurrence under cover with no radiometric response above. The mineralisation lies proximal to a complex structural zone with no prior exploration undertaken in this area and is situated approx. 4km ENE of U40. The Bully target was interpreted by high resolution magnetics acquired by AGE mid-2024 and geochemical signatures from previous auger and aircore sampling.

The aim of further work will be to improve the geological interpretation around Bully for future targeted drilling to include the Lower Cahill formation. Current drilling remains within Cahill formation but not down to the more structurally ductile and potentially altered (by U-bearing fluids) Lower Cahill.

Regional drilling under the NT's Resourcing the Territory co-funding was conducted in the north of EL31480. Drilling in this region was designed to help understand basement geology below cover with holes in the eastern side highlighting potassic altered granites to depth, while western holes showed geological variations consistent with gneissic banding and Archean basement. This indicates the geological setting is below preferred Lower Cahill while being a little high in the profile to the south. Drilling did not identify any anomalous uranium and was supported by 50% co-funding through the NT's Resourcing the Territory program.

## Surface 2024 Results and Exploration

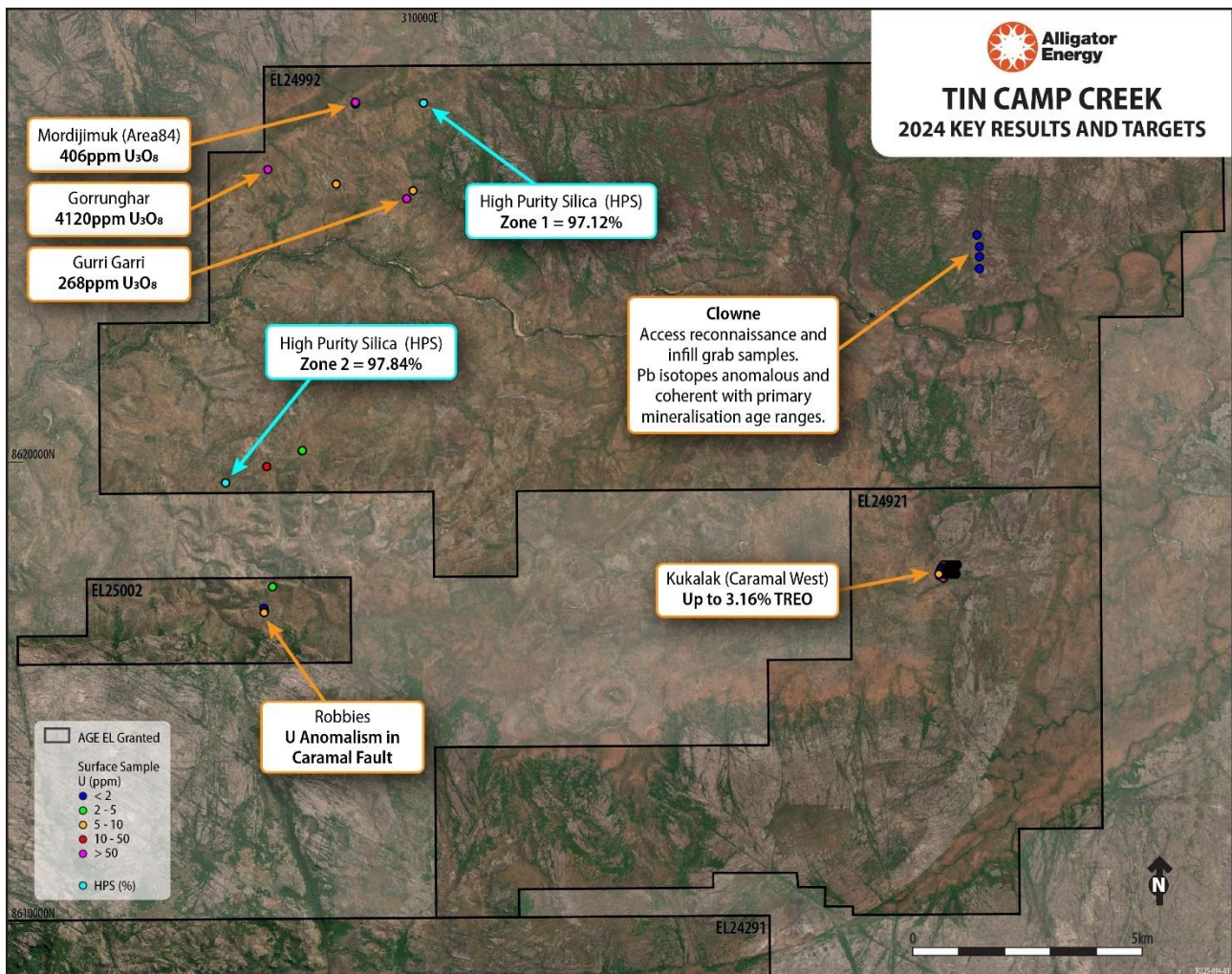
In addition to the RC drilling program outlined above, AGE completed regional sampling, mapping and reconnaissance programs at the Nabarlek North and Tin Camp Creek (TCC) Projects during 2024, focused on geological understanding and target generation. Figure 1 above details the distribution and key highlights of surface sampling across the Nabarlek North Project. Three notable uranium anomalies were identified with two on the western side of the tenement and one south of the Bully mineralisation discovery, broadening future investigations and exploration potential around this area.

In addition to uranium analysis, samples were also analysed for Rare Earth Elements (REE), with the NT's tropical climate and weathering profiles viewed as potential hosts for Ionic Adsorption style clay hosted resources.

At the company's TCC project a short surface sampling and reconnaissance program was undertaken across some priority targets. Highlights of this sampling program are shown in Figure 2 below with peak  $U_3O_8$  results of 4,120ppm from the Gorrunghar prospect where previous Alligator drilling recorded 7m @ 2886ppm  $U_3O_8$  (refer AGE ASX release 16 October 2013<sup>2</sup>). This target - combined with neighbouring prospects Gurri Garri and Mordijimuk represent a structurally complex area with further scope for investigation at depth and along strike.

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<sup>2</sup> AGE ASX Release 16 October 2013: Phase 1 Drilling Results, Tin Camp Creek Project. [01453731.pdf](#)



**Figure 2.** Plan view of AGE's 2024 surface sampling program and results at the Tin Camp Creek project.

Another key target at TCC known as the Clowne was reconnoitred for access with several grab samples collected for Pb isotope analysis infilling historic works. Interpretation of these results has shown anomalous radiogenic lead from a uranium source within primary mineralisation age ranges supporting historic target generation.

In addition to uranium exploration, a small sampling program over historic anomalous REE grab samples at TCC has returned results of up to 3.16% Total Rare Earth Oxides (TREO) in surface samples which appears to be hosted within a stratigraphic band of metamorphic Arkose. Rare earth samples were submitted for ICP-MS analysis following a Lithium Borate digest (considered a total digest method) at Bureau Veritas Adelaide with consideration of REEs occurring in resistive minerals. No notable REE anomalism was recorded over the Nabarlek North Project during the 2024 work program.

Opportunistic grab samples during reconnaissance also highlight the potential for high purity silica (HPS) to occur in the region through massive quartz veining. Two samples were collected over 8km apart in separate vein systems returning up to 97.84% SiO<sub>2</sub> through whole rock XRF analysis by Bureau Veritas Minerals. HPS appears to be gaining some attention with uses in specialist technologies and chips for AI and solar cells in the renewable sector. While 98% SiO<sub>2</sub> is preferred in industry, better sampling procedures and handling could potentially improve results and understanding of the potential.

Alligator will be seeking specialist consulting expertise to advance understanding of these results, including reviewing the detailed assays and potential rare earth metal groupings.

The key surface assay results with respect to U, REE and HPS are listed in the tables below.

**Key U assay results from surface sampling  
(assay reported >15ppm U3O8)**

Project	Prospect	Samp ID	Type	U3O8_ppm	Comments
TCC	Gorr	TC24-005	SOIL	4209.89	Gorrunghar surface sample from costeen, known U occurrence
TCC	Area 84	TC24-086	ROCK	405.66	Mordijimuk - historic known U occurrence
TCC	Gurrigarri	TC24-088	ROCK	267.69	GurriGarri known U occurrence
TCC	Area 84	TC24-085	ROCK	179.24	Mordijimuk - historic known U occurrence
TCC	Kukalak	TC24-036	ROCK	175.71	Sample on Caramal road. Western edge of Caramal
TCC	Area 84	TC24-076	ROCK	103.54	Mordijimuk - historic known U occurrence
TCC	Kukalak	TC24-065	ROCK	95.05	Ancillary U with REEs and Th
TCC	Kukalak	TC24-079	ROCK	84.2	Ancillary U with REEs and Th
TCC	Kukalak	TC24-028	ROCK	67.57	Ancillary U with REEs and Th
TCC	Kukalak	TC24-050	ROCK	62.62	Ancillary U with REEs and Th
TCC	Kukalak	TC24-078	ROCK	62.5	Ancillary U with REEs and Th
TCC	Kukalak	TC24-061	ROCK	61.79	Ancillary U with REEs and Th
TCC	Kukalak	TC24-069	ROCK	46.93	Ancillary U with REEs and Th
TCC	Kukalak	TC24-058	ROCK	46.11	Ancillary U with REEs and Th
TCC	Kukalak	TC24-080	ROCK	36.67	Ancillary U with REEs and Th
TCC	Kukalak	TC24-038	ROCK	35.14	Ancillary U with REEs and Th
TCC	Robbies Rd	TC24-010	SOIL	35.02	Regional sampling along Caramal fault
TCC	Kukalak	TC24-030	ROCK	31.84	Ancillary U with REEs and Th
TCC	Kukalak	TC24-077	ROCK	31.72	Ancillary U with REEs and Th
TCC	Kukalak	TC24-032	ROCK	30.31	Ancillary U with REEs and Th

**Key REE assay results from surface sampling  
(assay reported >200ppm MREO)**

Project	Prospect	Samp ID	Type	TREO_ppm	MREO_ppm	Comments
TCC	Kukalak	TC24-036	ROCK	31551.79	6813.79	REEs adjacent to Caramal = over 3% REEs
TCC	Kukalak	TC24-065	ROCK	29647	6295.72	REEs adjacent to Caramal
TCC	Kukalak	TC24-079	ROCK	19799.35	4460.37	REEs adjacent to Caramal
TCC	Kukalak	TC24-028	ROCK	17315.15	3838.02	REEs adjacent to Caramal
TCC	Kukalak	TC24-078	ROCK	13366.87	2958.22	REEs adjacent to Caramal
TCC	Kukalak	TC24-058	ROCK	13298.6	2942.68	REEs adjacent to Caramal
TCC	Kukalak	TC24-050	ROCK	11301.93	2509.79	REEs adjacent to Caramal
TCC	Kukalak	TC24-061	ROCK	10312.62	2295.12	REEs adjacent to Caramal
TCC	Kukalak	TC24-069	ROCK	9568.07	2123.64	REEs adjacent to Caramal
TCC	Kukalak	TC24-080	ROCK	7799.72	1727.92	REEs adjacent to Caramal
TCC	Kukalak	TC24-030	ROCK	7251.17	1626.01	REEs adjacent to Caramal
TCC	Kukalak	TC24-032	ROCK	4752.62	1066.39	REEs adjacent to Caramal
TCC	Kukalak	TC24-077	ROCK	3039.21	661.9	REEs adjacent to Caramal
TCC	Kukalak	TC24-072	SOIL	3374.45	657.7	REEs adjacent to Caramal

TCC	Kukalak	TC24-074	ROCK	2639.19	592.46	REEs adjacent to Caramal
TCC	Kukalak	TC24-075	ROCK	2287.02	511.36	REEs adjacent to Caramal
TCC	Kukalak	TC24-082	SOIL	2284.53	504.85	REEs adjacent to Caramal
TCC	Kukalak	TC24-064	SOIL	2035.58	450.78	REEs adjacent to Caramal
TCC	Kukalak	TC24-081	SOIL	1963.1	431.4	REEs adjacent to Caramal
TCC	Kukalak	TC24-063	SOIL	1592.97	345.55	REEs adjacent to Caramal
NN	RAD4	SR24-013	ROCK	1263.58	344.05	REEs in Cretaceous cemented siltstone
TCC	Kukalak	TC24-083	SOIL	1339.41	293.21	REEs adjacent to Caramal
TCC	Kukalak	TC24-084	SOIL	1260.22	272.69	REEs adjacent to Caramal
NN	HIN1	SR24-231	ROCK	898.13	237.56	NE of Hin1 Far north of NN project

#### Key HPS assay results from surface sampling

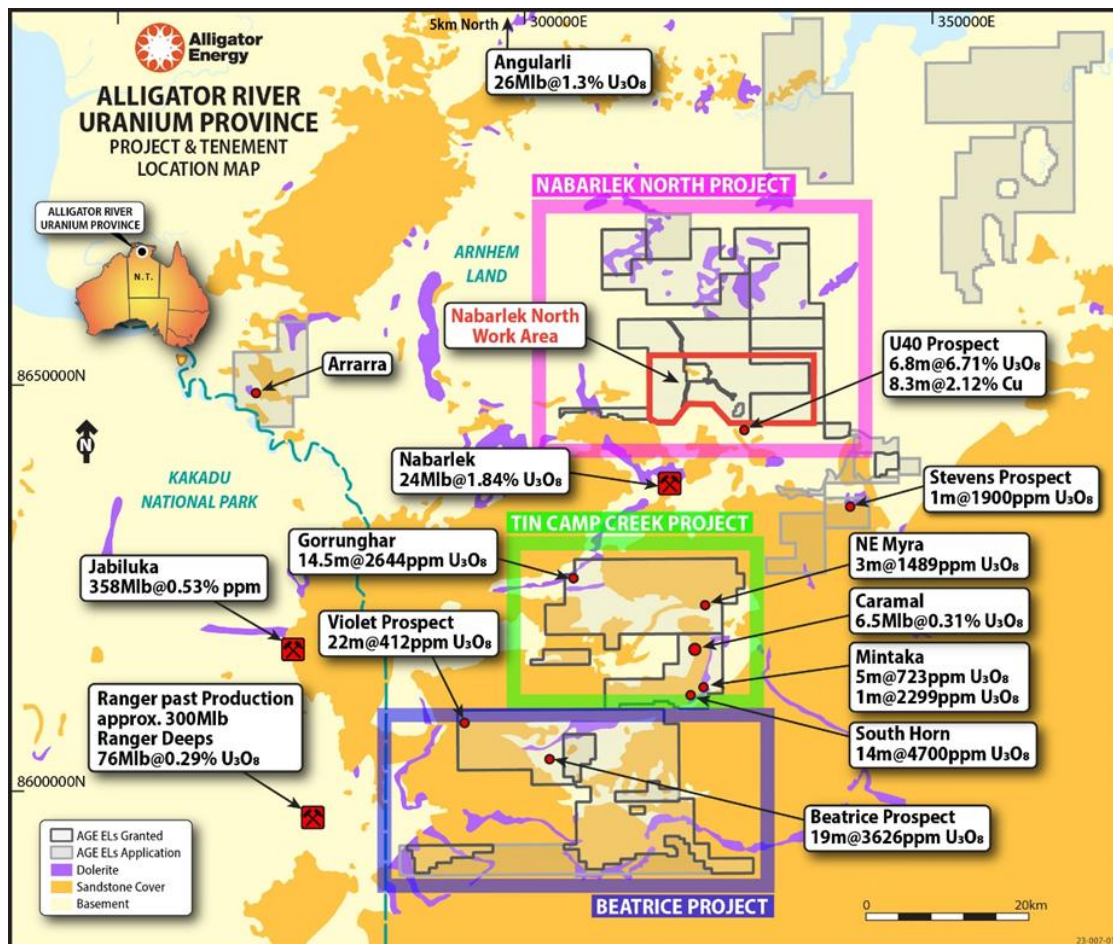
Project	Prospect	Samp ID	Type	SiO2_%	Fe_%	Comments
TCC	Robbies road	TC24-011	ROCK	97.84	1.74	Spot grab sample en-route to Robbie's Prosept.
TCC	Random	TC24-007	ROCK	97.12	2.06	Random Grab Sample from TCC1 valley scouting NW 24921

### Background to Nabarlek North Project and Aims

The Nabarlek North Project represents a highly prospective under-explored region within the ARUP (Figure 3), typified by the presence of an exhumed Proterozoic unconformity and enough cover sediments to mask bedrock radiometric signatures and discouraged past exploration. Alligator started in 2022 not knowing if there were fertile geological formations present in the Project area. Historical data has largely been ambivalent with regards to bedrock geology, and it has been widely assumed that the Project is underpinned by the barren Nimbuwah Complex granites and gneisses, rather than the fertile Cahill Formation that host most of the economic orebodies in the ARUP.

The Project is located less than 7km north of the historic Nabarlek uranium mine which produced 24Mlb of U<sub>3</sub>O<sub>8</sub> at an average grade of 1.84%<sup>(1)</sup>. The U40 Prospect, located 200m south of Alligator's southern tenement boundary, has historically reported grades of up to 6 m @ 7.6% U<sub>3</sub>O<sub>8</sub><sup>(1)</sup> demonstrating high-grade occurrences proximal to the Nabarlek North Project.

The work carried out in 2022 through to 2023 was the Company's first foray into this Project and was designed to establish in an inexpensive manner testing for fertile geological formations and structures under the thin cover. This work showed that previous interpretations are incorrect and that the fertile Cahill Formation is likely to be widely present but segmented by regional scale structures capable of 'plumbing' a uranium mineralising system.



**Figure 3: Location of the Nabarlek North work area and Alligators ARUP Project tenure in the NT**

Alligator believes that armed with the right datasets and a predictive geological model, we will be able to take advantage of simple and inexpensive exploration techniques to make a discovery through thin cover. While sandstone cover and the associated unconformity have previously been seen as essential ingredients to the mineralisation model in Arnhem Land, the identification of mineral resources and occurrences at depth *below* the unconformity such as Ranger 3-Deeps, demonstrate it is not essential. Alligator will not only be exploring the possibility of extensions of the U40 Prospect mineralised system into the Nabarlek North tenement package but also be pursuing identification of new uranium systems further north where Cahill Formation is now interpreted beneath unexplored cover.

**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

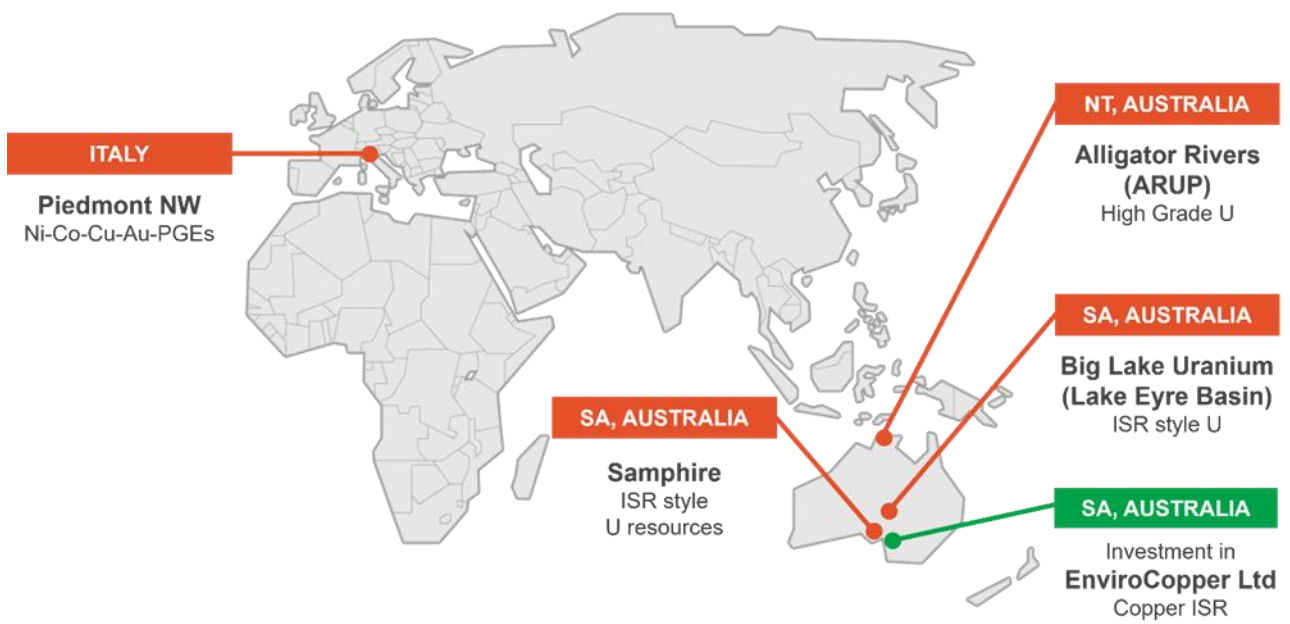
Information in this report is based on current and historic Exploration Drilling Results compiled by Dr Andrea Marsland-Smith who is a Member of the AusIMM. Dr Marsland-Smith is employed on a full-time basis with Alligator Energy as Chief Operating Officer, and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration (including 22 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



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

Table 1: Uranium intercepts from AGE Nabarlek North RC drilling program 2024. Uranium concentrations ( $U_3O_8$ ) were determined from assays on 1 m bulk samples. Minimum threshold of 100 ppm  $U_3O_8$  used for reporting purposes (minor anomalism represented by assays between 25 and 100ppm  $U_3O_8$ ).

Hole ID	Prospect	Easting	Northing	RL (m)	Depth (m)	Dip	Azimuth	Co-fund	From (m)	Interval (m)	$U_3O_8$ (ppm)
NNRC24-010	ROF	324647	8656305	65	150	-60	232	Y	No Significant Intercept		
NNRC24-011	ROF	324128	8656297	67	150	-70	225	Y	No Significant Intercept		
NNRC24-012	ROF	322948	8655443	56	150	-70	225	Y	No Significant Intercept		
NNRC24-013	ROF	323086	8655605	58	150	-70	225	Y	No Significant Intercept		
NNRC24-014	ROF	326496	8655905	71	150	-90	360	Y	No Significant Intercept		
NNRC24-015	ROF	326689	8655894	75	150	-90	360	Y	No Significant Intercept		
NNRC24-016	ROF	326294	8655893	68	150	-90	360	Y	No Significant Intercept		
NNRC24-017	ROF	326329	8654690	68	150	-70	90	Y	No Significant Intercept		
NNRC24-018	Bully	329954	8646702	98	150	-90	360	Y	Minor anomalism		
NNRC24-019	Bully	330025	8646701	99	150	-90	360	Y	83	1	109
NNRC24-020	Bully	330103	8646666	99	150	-90	360	Y	No Significant Intercept		
NNRC24-021	U40 N	326699	8645899	67	150	-90	360	N	No Significant Intercept		
NNRC24-022	U40 N	326794	8645895	67	136	-90	360	N	No Significant Intercept		
NNRC24-023	U40 N	326894	8645890	67	156	-90	360	N	No Significant Intercept		
NNRC24-024	U40 W	326745	8645409	71	150	-90	360	N	No Significant Intercept		
NNRC24-025	U40	327135	8645319	68	210	-80	270	N	Minor anomalism		
NNRC24-026	U40	327169	8645305	67	150	-70	90	N	No Significant Intercept		
NNRC24-027	U40	327156	8645303	68	228	-90	360	N	No Significant Intercept		
NNRC24-028	U40	327115	8645460	66	150	-80	90	N	Minor anomalism		
NNRC24-029	U40	327111	8645432	66	198	-80	90	N	Minor anomalism		
NNRC24-030	U40	327148	8645338	67	150	-65	90	N	Minor anomalism		
NNRC24-031	U40	327125	8645327	68	198	-80	90	N	45	3	260
									Including 1m @ 570ppm		

# JORC Code, 2012 Edition – Table 1

## Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Results reported in this announcement relate to reverse circulation (RC) drilling during the 2024 exploration program at the Nabarlek North Project and surface sampling results from both it and the company's Tin Camp Creek project in the Alligator Rivers Uranium Province ("ARUP"), Northern Territory.</li> <li>Sampling of the RC drilling program involved the following components: <ul style="list-style-type: none"> <li>Drilling sample return is taken off the rig at 1 m intervals without any splitting. They are laid out in numerically ordered labelled bags to avoid any confusion over intervals.</li> <li>Following geological inspection, representative and non-composited 1-3 kg portions are taken from the 1 m samples (above) where there is: a change in geological horizon, mineralisation, alteration assemblages or any other zone of interest. Sampling is done on a maximum 10 m interval over the entire drill hole as part of the geochemical program.</li> <li>All samples are geologically logged, and natural gamma radioactivity level is measured with a RS-230 BGO Handheld Gamma-Ray Spectrometer</li> </ul> </li> <li>Surface Sampling was undertaken at both planned and ad-hoc locations identified during sampling and reconnaissance programs, with a mix of soil and hard rock samples. Locations are recorded by GPS. <ul style="list-style-type: none"> <li>Soils were collected by shovel from an approximate 20 to 30cm depth, weighing 1-2kg</li> <li>Rocks were collected by hammer, with sample weights typically 1-2kg</li> </ul> </li> <li>Samples for assaying across the entire RC drilling and surface sampling programs were shipped to the same laboratory under multiple batches. Laboratory sample preparation is described in the 'quality of assay data' section.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).</li> </ul>	<ul style="list-style-type: none"> <li>Drilling was contracted to Topdrill P.L. of Western Australia. Using a Schramm T685 rig for reverse circulation (RC), twenty two holes were completed with typical depths of 150m upto 228m. (see Table 1)</li> <li>Drill hole collar locations were positioned using a dual phase Garmin GPS with an approximate X-Y tolerance of 3 to 5 m.</li> <li>Holes were surveyed on completion of drilling with a Reflex SPRINT IQ gyroscopic compass. Survey interval was typically 10 m and end of hole.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Sample recovery from the RC drilling is monitored during drilling with an assessment made on the volume and weight of material recovered relative to the drill interval. If RC sample recovery is poor, it is logged as such. This is systematically recorded in the logging database.</li> <li>Cross-interval contamination is assessed regularly but it is not possible to eliminate from the RC drilling process. No significant contamination issues have been encountered in this program.</li> <li>For this program no apparent relationship was observed between sample recovery and grade. No sample bias is expected.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> </ul>	<ul style="list-style-type: none"> <li>Standard sample logging procedures are utilised, including logging codes for lithology, minerals, colour, weathering etc.</li> <li>A chip tray for selected sample intervals is completed covering interesting lithologies and mineralisation. A sub-sample is sieved into chip trays to provide for further detailed logging once the assays have been</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>received.</li> <li>All chip trays are photographed for digital archiving</li> <li>Average natural gamma ray activity is measured for each sample. The instrument is routinely calibrated from counts to instrument-independent decay rate, taking into crystal volume, sensitivity, and dead-time.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether rifled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality, and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>The RC drilling process does not generate core but chips of samples as returns</li> <li>The chips are recovered at one-meter intervals via the dust supressing cyclone – wet or dry</li> <li>1-3 kg samples are extracted from the one-meter interval 'bulk samples' at 15m intervals, for routine laboratory submission.</li> <li>Selective sample intervals for assaying are selected on the basis of a change in geological horizon, mineralisation, alteration assemblages or any other zone of interest.</li> <li>Samples are taken by spear of the bulk to provide an unbiased split for analysis.</li> <li>To ensure laboratory reliability, a quality control (QC) sample was inserted in a maximum 1:40 ratio.</li> <li>Duplicates and Standards pertinent to the type of mineralisation and grades anticipated, were also submitted with batches to verify laboratory sensitivity and thresholds</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>Sample analysis occurs at Bureau Veritas, SA</li> <li>Samples were pulverized and then split to obtain separate aliquots: <ul style="list-style-type: none"> <li>0.2g aliquot dissolved in classic four acid mixture and assayed for minor elements (inc REEs) using ICP-MS and ICP-OES. Resistate minerals may not be dissolved in this method and as such certain elements can be considered minimum values (e.g., Zr, Ti).</li> <li>1g aliquot that has been fused with lithium metaborate and dissolved in nitric acid and assayed for major elements using ICP-OES. This is close to a full digestion of resistate minerals.</li> <li>40g aliquot used for classic Firing technique (ICP-OES) to determine Au, Pt and Pd (PGEs).</li> <li>Aliquot for gravimetric analysis (Loss on Ignition)</li> <li>0.2g aliquot dissolved in classic four acid mixture and assayed for lead and uranium isotopes using ICP-MS. Resistate minerals may not be dissolved in this method (e.g., Zircon, Monozite), which is intentional, as the isotope values being sought are for remobilised materials that can provide evidence of alteration or pathways for mineralising fluids.</li> </ul> </li> <li>Bureau Veritas employs standard NATA procedures for internal standards and duplicates.</li> <li>Samples analysed for REEs were submitted for ICP-MS following Lithium Borate fusion, considered a total digest method in consideration of REE hosting resistate minerals such as Monozite, Xenotime and Bastnäsité.</li> <li>HPS samples were submitted for whole rock XRF analysis in consideration of the high silica grades, samples were fused with 12:22 Lithium Borate flux following standard crushing and pulverising preparations.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Alligator's project geologists are supervised by the Project Manager</li> <li>All field data is entered into excel spreadsheets (supported by look-up tables) at site and subsequently validated as it is imported into the centralized Access database.</li> <li>Hard copies of logging and sampling data are stored in the local office and electronic data is stored on the company server.</li> <li>As an early exploration / part stratigraphic drilling program, twinning of results is not required. However, all new data will be compared against legacy drill datasets, Alligator's current aircore and auger programs, geophysical coverage etc, to check for a consistent picture, possible discrepancies in new and old data and anomalies – leading to an enhanced picture of local prospectivity.</li> </ul>

Criteria	JORC Code explanation	Commentary
Location of data points	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>All coordinate information was collected using hand held GPS utilizing GDA 94, Zone 53. While spatial location is expected to be recovered within 3 – 5 m, it is possible that the elevation can be as much as 10 m out with respect to the currently established geoid.</li> <li>All RC drillholes have been downhole surveyed at regular intervals.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>No sample compositing has been implemented. Drill samples are whole metre intervals only.</li> <li>Drilling distribution and sampling is deemed appropriate at this stage of exploration. <ul style="list-style-type: none"> <li>5m sample buffers around downhole mineralisation were implemented to provide sufficient data where uranium mineralisation has been intersected.</li> <li>No resource drilling was undertaken during this exploration program.</li> </ul> </li> <li>Surface sampling distribution has been planned on a case by case basis to cover geological terrains and inform regional assessment and target generation through broad spaced geochemical analysis with distributions deemed appropriate for exploration stage programs.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Drill traverses were generally designed to be orthogonal to the predicted strike of geology and structure, however, this is not a definitive and there remains a level of the uncertainty of the geological geometry at this early stage of exploration.</li> <li>The steepness of dip in the bedrock geology was not evident in outcrop in the locations covered with RC drilling. Consequently, it is possible that the angle of holes were not optimal to orthogonally cross-cut stratigraphy or mineralisation encountered.</li> <li>Surface sampling traverses were designed with consideration of interpreted geological trends taking into account geophysics, inferred regolith depths and access within consented work areas.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Company geologists supervise all sampling and subsequent storage in field and transport to point of dispatch to the assay laboratory.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>Audits or reviews of the sampling techniques were not undertaken.</li> </ul>

Section 2 – Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<p><i>Mineral tenement and land tenure status</i></p>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Nabarlek North project comprises Exploration Licences (ELs) 31480, 27252, 27253, 28389, 28390, 29991, 29992 &amp; 29993. The Nabarlek North licences were granted to Northern Prospector Pty Ltd, a wholly owned subsidiary of Alligator Energy Ltd on 20th April 2021 and owned 100% outright.</li> <li>• The ARUP projects lie within the Arnhem Land Aboriginal Reserve on Aboriginal Land Rights Act (ALRA) land, about 250km east of Darwin, NT.</li> <li>• Alligator has obtained consent under the ALRA and has exploration agreements in place, enabling work programs to take place on the basis of annual approval by Traditional Owners and the Northern Land Council.</li> <li>• Sacred sites in the areas take the form of registered sites, which the company has full understanding of the location, and are excluded from exploration. Like any other jurisdiction, Alligator is required to protect heritage and archaeological sites via work area clearances on an as-needs basis.</li> <li>• Alligator operates under an approved authorisation (Mining Management Plan; MMP) with the NT Government.</li> <li>• The Camp Creek Project which is comprised of contiguous exploration licences EL24921 and EL24922 in the Northern Territory. The tenement is held by TCC Project Pty Ltd (98%), a wholly owned subsidiary of Alligator Energy Ltd (Alligator) and by West Arnhem Corporation Pty Ltd (2%). The tenements and are in good standing. Exploration and Mining agreements with the Northern Land Council (NLC) on behalf of traditional owners are in place for these tenements in accordance with the Aboriginal Land Rights Act (1976).</li> <li>• The Tin Camp Creek Project is also subject to a uranium buy back agreement with Cameco Australia Pty Ltd whereby Cameco may buy 51% of a defined resource greater than 20,000t contained U3O8.</li> <li>• There are no known existing impediments to operating on any tenement within the Tin Camp Creek Project area.</li> </ul>
<p><i>Exploration done by other parties</i></p>	<ul style="list-style-type: none"> <li>• <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Modern exploration for uranium commenced in the region following regional airborne radiometric surveys over the Alligator Rivers Province by the BMR in 1969. The Nabarlek deposit, approximately 7km south of EL31480, was subsequently discovered by Queensland Mines Ltd (QML) following a regional fixed wing airborne radiometric survey. QML undertook follow up work consisting of radiometric surveys, regional stream sediments surveys, ground follow up and geological mapping. As a result of this work several prospects in proximity to the Nabarlek North packages were identified however modest Cenozoic and Lateritic cover obscure basement and potential radiometric anomalies through the licences and limited follow-up exploration has been conducted.</li> <li>• Exploration ceased in 1973 following the Federal Government decision to inhibit uranium mining in the Alligator Rivers region. No work was undertaken in the area between 1973 and 1987 due to an embargo on the grant of exploration licences in Arnhem Land.</li> <li>• Historically 9 licences have covered varying large and small parts of the Nabarlek North licences with ELs 734 and 5890 operated by Cameco and PNC, AP2543 operated by Union Carbide, EL22707 operated by Rio Tinto and EL24868 operated by UXA resources being the primary historic licences of note.</li> <li>• PNC/Cameco collected regional geophysical datasets and drilled sparse shallow RAB holes and collected soil samples in the northern and western part of the current work area. No anomalous uranium was encountered.</li> <li>• UXA collected AEM and Hyperspectral over a large part of the work area in 2011. This was followed by soil sampling in a similar area to Alligator's current work program area but was largely ineffectual due to transported cover. Radon cup and ground scintillometer surveys were also of mixed success. In 2011-2012, UXA drilled 48 RC holes for 4056 m in areas of elevated radioactivity, most of which lie on the southern boundary of the tenement package closer to the U40 Prospect (currently held by DevEx</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>Resources Ltd). Holes were gamma logged but no significant mineralisation was encountered. A small ground gravity survey was undertaken, which has now provided Alligator with a comparative dataset for the airborne gravity (Falcon).</p> <ul style="list-style-type: none"> <li>• DevEX Resources Ltd have continued to drill-test the U40 Prospect on the southern edge of AGE's Nabarlek North. Details of results can be found in ASX announcements.</li> <li>• Regional exploration across the TCC project has previously been undertaken by other parties including Queensland Mines Ltd (1970-1972), Afrmeco (1996-2001) and Cameco Australia Pty Ltd (2001-2010).</li> </ul>
Geology	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The projects are located within the eastern margin of the Pine Creek Orogen (PCO) and lies on the eastern boundary of the Nimbuwah structural domain (Needham 1988).</li> <li>• The Nabarlek North licences represent a region with poor sub-surface geological understanding and limited historic exploration and subsequent interpretation. The majority of the licences are covered by undifferentiated Cretaceous and Cenozoic sediments and lateritic cover with limited basement exposure. A central sandstone stack (Nimbuwah Rock) within the licences and minor, thin Kombolgie sandstone cover in the southeast indicate stratigraphy throughout the licences is close to the main basal Kombolgie unconformity level.</li> <li>• NT department datasets, neighbouring exploration licence interpretations and historic works have identified an Archean dome encroaching the western sides of EL31480. This Archean dome has recently been re-classified from Nimbuwah Complex within NTGS datasets to Arrarra Gneiss, a lateral equivalent of the Nanambu Complex proximal to the Ranger and Jabiluka Uranium deposits (Ahmad et al, 2013). With the identification of this Archean unit, it is inferred that Proterozoic units of the Lower Cahill, Upper Cahill and Nourlangie Schist are likely present under cover sequences throughout the Nabarlek North licences.</li> <li>• Extensive work has been undertaken just south of EL31480 at the U40 prospect where a small high grade Uranium occurrence resides in a regional NNW orientated structure known as the Quarry Fault (DevEx Resources Ltd). This interpreted structural zone extends through the Nabarlek North licences and has associated Uranium, Copper, Gold and Platinum group mineralisation known to the south of the Nabarlek North licences. From drilling and geophysical interpretation at the U40 prospect (DevEx Annual Report, 2019) the Quarry Fault is highlighted by a conductive anomaly from IP geophysics and has a downthrown western side. The western margin of the Quarry Fault at U40 has shallow Kombolgie cover with underlying Cahill Formation to depth whilst the hanging eastern wall has Cahill Formation to approximately 120m depth overlying basement gneiss. Several other major structures are evident in existing airborne geophysics at varying orientations with little understanding and often hosting younger dolerite intrusions.</li> <li>• The exploration model for uranium in the ARUP is based on the Ranger, Ranger 3-deeps, Nabarlek, Angularli, Caramal and Jabiluka deposits. These are often referred to as "unconformity style" uranium deposits with key structural controls. It is generally believed that oxidised fluids circulating in the Kombolgie sandstones corroded various uranium-bearing mineral phases and this fluid was able to interact with the underlying reduced basement rocks along low-angle structures. Uranium mineralisation took place at or near that unconformity by Redox processes. The host rock is typically Mg or Fe bearing altered carboniferous lithologies of the Lower Cahill formation. The ideal formation for these attributes is the Cahill Formation, which host all of the main deposits in the region. Alligator believes that this formation is also present in the Nabarlek North Project under only thin cover, and this has encouraged the company to explore the area rather than areas with thick sandstone cover. The Cahill Formation is a thick stratigraphic unit and definitive stratigraphic understanding and positioning is ongoing.</li> </ul>

Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul style="list-style-type: none"> <li>• 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: <ul style="list-style-type: none"> <li>○ easting and northing of the drill hole collar</li> <li>○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>○ dip and azimuth of the hole</li> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> </ul> </li> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• The RC drilling program entailed twenty two holes in total, across 3 exploration targets or prospects. Refer to Table 1 of this report for Drill hole information.</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>• Where aggregate intercepts incorporate 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.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>• Reported drilling results have been aggregated based on a 100ppm U<sub>3</sub>O<sub>8</sub> minimum cut off.</li> <li>• A 100ppm U<sub>3</sub>O<sub>8</sub> minimum cut off has been used for reported intersects.</li> <li>• U<sub>3</sub>O<sub>8</sub> values are calculated using the metal to oxide formula: U(ppm)*1.1792=U<sub>3</sub>O<sub>8</sub>(ppm)</li> <li>• TREO = La<sub>2</sub>O<sub>3</sub> + CeO<sub>2</sub> + Pr<sub>6</sub>O<sub>11</sub> + Nd<sub>2</sub>O<sub>3</sub> + Sm<sub>2</sub>O<sub>3</sub> + Eu<sub>2</sub>O<sub>3</sub> + Gd<sub>2</sub>O<sub>3</sub> + Tb<sub>4</sub>O<sub>7</sub> + Dy<sub>2</sub>O<sub>3</sub> + Ho<sub>2</sub>O<sub>3</sub> + Er<sub>2</sub>O<sub>3</sub> + Tm<sub>2</sub>O<sub>3</sub> + Yb<sub>2</sub>O<sub>3</sub> + Lu<sub>2</sub>O<sub>3</sub> + Y<sub>2</sub>O<sub>3</sub> <ul style="list-style-type: none"> <li>○ Includes Yttrium Y</li> </ul> </li> <li>• MREO = Pr<sub>6</sub>O<sub>11</sub> + Nd<sub>2</sub>O<sub>3</sub> + Tb<sub>4</sub>O<sub>7</sub> + Dy<sub>2</sub>O<sub>3</sub></li> <li>• Rare earth oxides are calculated by multiplying elemental ppm results by their relative oxide factors as outlined below: <ul style="list-style-type: none"> <li>○ CeO<sub>2</sub> = Ce_ppm * 1.2284</li> <li>○ Dy<sub>2</sub>O<sub>3</sub> = Dy_ppm * 1.1477</li> <li>○ Er<sub>2</sub>O<sub>3</sub> = Er_ppm * 1.1435</li> <li>○ Eu<sub>2</sub>O<sub>3</sub> = Eu_ppm * 1.1579</li> <li>○ Gd<sub>2</sub>O<sub>3</sub> = Gd_ppm * 1.1526</li> <li>○ Ho<sub>2</sub>O<sub>3</sub> = Ho_ppm * 1.1455</li> <li>○ La<sub>2</sub>O<sub>3</sub> = La_ppm * 1.1728</li> <li>○ Lu<sub>2</sub>O<sub>3</sub> = Lu_ppm * 1.1371</li> <li>○ Nd<sub>2</sub>O<sub>3</sub> = Nd_ppm * 1.1664</li> <li>○ Pr<sub>6</sub>O<sub>11</sub> = Pr_ppm * 1.2082</li> <li>○ Sm<sub>2</sub>O<sub>3</sub> = Sm_ppm * 1.1596</li> <li>○ Tb<sub>4</sub>O<sub>7</sub> = Tb_ppm * 1.1762</li> <li>○ Tm<sub>2</sub>O<sub>3</sub> = Tm_ppm * 1.1421</li> <li>○ Y<sub>2</sub>O<sub>3</sub> = Y_ppm * 1.2699</li> <li>○ Yb<sub>2</sub>O<sub>3</sub> = Yb_ppm * 1.1387</li> </ul> </li> </ul>



Criteria	JORC Code explanation	Commentary
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>• Uranium mineralisation over 100ppm U<sub>3</sub>O<sub>8</sub> was intersected over a narrow interval in two of the holes.</li> <li>• While it is possible that these intersections have some structural or geological association to the U40 prospect to the south, it cannot be assumed nor is there sufficient evidence to draw conclusions on true width or continuity.</li> <li>• Minor anomalism is deemed as &lt;100ppm U<sub>3</sub>O<sub>8</sub> and &gt;25ppm U<sub>3</sub>O<sub>8</sub></li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• See figures in release.</li> <li>• Appropriate scales and orientations are applied to all diagrams.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Exploration results are discussed in the report and shown in figures.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• See release details.</li> <li>• All meaningful and material data reported.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The RC drilling and surface results as reported here were part of a comprehensive exploration program across the AGE Nabarlek North and Tin Camp Creek Projects in 2024.</li> <li>• Further exploration works and target generation will be released as merited following detailed technical interpretation and planning.</li> </ul>