22 September 2015

ASX Announcement

Alligator Energy drilling update at Beatrice Project

Highlights

- **First pass drilling at BT-4 completed**
- **Drilling intersects fault zone and alteration associated with peak of SAM anomaly**
- **Results suggest more favourable host lithologies occur further to the north of BT-4 than expected**
- **Drilling now commencing on Beatrice prospect to south of existing high grade intersections**

Alligator Energy (ASX: AGE) has completed first pass drilling on the BT-4 target area at the Beatrice project in the Northern Territory.

Eleven shallow (maximum depth 34 metres) air-core drill holes have been completed on three traverse lines to test a SAM (Sub Audio Magnetics) geophysical target (refer Figure 1). Drilling has intersected a fault zone with associated alteration. While alteration and the fault zone were accurately defined by the SAM anomaly, the basement rock types are not considered optimal for uranium mineralisation. No significant uranium mineralisation has been intersected.

The contact with more favourable basement lithologies is now considered further to the north of existing drilling. The results of this latest drilling will be further assessed before undertaking future drilling at BT-4.

The drill rig is now relocating to the Beatrice prospect to test a potential southerly extension to previously discovered high-grade mineralisation which included 19m@3,626ppm (0.36%) U_3O_8 (ASX announcement- 15th March 2015). Soil and ground radiometric surveys completed over Beatrice prospect show strong uranium (>100ppm U_3O_8) and strong radiogenic isotope anomalies extending more than 200 metres south from the known high-grade mineralisation to the edge of younger cover material (ASX announcement- 5th August 2015). These anomalies are open to the south under the younger cover material. First pass drilling of 12 drill holes over 4 traverse lines is expected to be completed within the next 10 days (refer Figure 1). Drilling will then proceed to the BT-1 target area.

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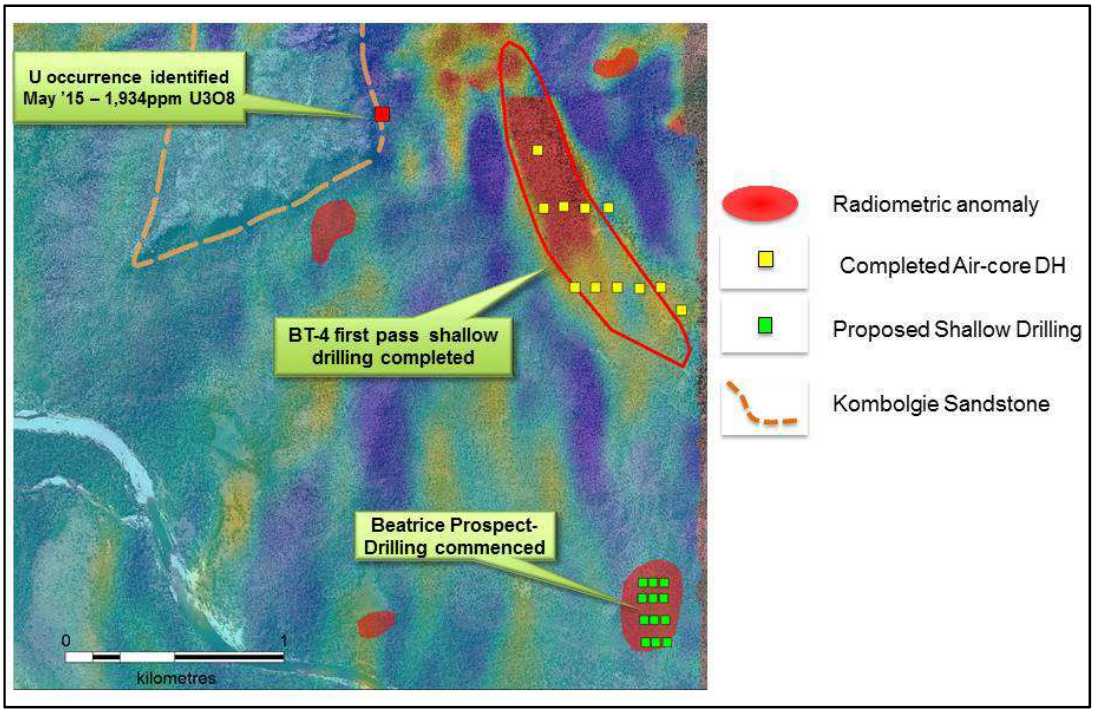

Figure 1: Actual drilling locations at BT-4 and proposed locations for Beatrice Prospect.

FOR FURTHER INFORMATION, PLEASE CONTACT

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JORC Code, 2012 Edition – Table 1

Exploration update – September 2015.

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.*	• A total of 290 Aircore drill samples were retrieved during this period of work. • 1 metre composite drill chip samples were collected at in plastic sample bags via drill rig cyclone. • The samples obtained are considered to be representative of the intervals from which they were obtained and sampling and sub-sampling techniques were appropriate for the sample type and for exploration purposes. • A Radiation Solutions RS-125 spectrometer was used to measure radioactivity (in counts per second – cps) of each 1m sample. Samples are selected for laboratory based geological observation and radioactivity (cps) relative to background.
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,*	• All drilling was conducted using heli-supported Aircore rig with either blade, blade-vacuum and tri-cone sampling bits.

	whether core is oriented and if so, by what method, etc).	
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.*	• Undersize drilling samples returned are recorded on drill hole sampling sheets.
Logging	• *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.* • *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 chip samples are logged systematically recording lithology, alteration and mineralisation. Drilling was undertaken for exploratory purposes. • Lithological logging is qualitative. • All (100%) drill intervals have been logged by company geologists.
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*	• The samples obtained are considered to be representative of the intervals from which they were obtained and sampling and sub-sampling techniques were appropriate for the sample type and for exploration purposes. • No Field Blanks, duplicates or laboratory prepared standards were inserted into the sampling sequence for assay. • Samples chosen for assay are submitted for analyses to NTEL Laboratory in Darwin. Further sample preparation is undertaken by NTEL prior to assay. Drill samples are dried to a core temperature of approximately 100ºC. Dried samples are then coarse crushed using a Boyd crusher to a sizing of approximately 5mm. The total sample is then milled in an LM5 pulveriser to 85% passing 75µm. An analytical pulp of 250 g is taken from the bulk and the residue retained. The pulp sample is retained by the lab.

	appropriate to the grain size of the material being sampled.	• Sample sizes were considered appropriate for the type of material being sampled. .
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.*	• A Radiation Solutions RS-125 spectrometer was used to measure radioactivity (in counts per second – cps) of each sample. Some samples are selected for laboratory assay based geological observation and radioactivity (cps) relative to background. • Geochemical assay of representative samples is undertaken at NTEL's Darwin laboratory. Uranium analysis is undertaken utilising ICP-MS using Lithium Borate fusion of the pulp sample. This technique is considered a total analysis method and appropriate for the style of mineralisation targeted. • Field Standards, blanks and duplicates were not included in the samples submitted to the laboratory at this early exploration phase. • No assay data is provided in this report
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.*	• No assay data is provided in this report • No adjustment of assay data is undertaken
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.*	• Current sample locations were surveyed using GPS with accuracies of between 1-4 metres. • All samples have been surveyed on Map Grid of Australia 94 (MGA94 Zone 53).

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.*	• Drilling was broad spaced for exploratory purposes to test new structural targets and until significant mineralisation is identified is insufficient to define mineral resources. • Sample compositing has not been 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.*	• Current sampling is of an exploratory nature. There is generally insufficient data in the areas during this phase of work to determine the orientation of host structures. • No known sampling bias is known to have been introduced.
Sample security	• *The measures taken to ensure sample security.*	• Samples, each contained in calico and subsequent zip tied polyweave sample bags are delivered by Alligator personnel with Chain of Custody documentation directly to NTEL laboratory in Darwin.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits have been undertaken for this phase of work.

Section 2 Reporting of Exploration Results

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*	• All work reported in this ASX release was undertaken on the Beatrice Project JV. • The Beatrice Project JV with Cameco which is comprised of exploration licences EL24291 and EL26796 in the Northern Territory. The tenements are held by Cameco Australia Pty Ltd. Alligator executed the Beatrice Joint Venture agreement with Cameco on 18 December 2014. • The key terms of the Joint Venture are as follows:

	licence to operate in the area.	Alligator may earn a Stage 1 interest of 51% of the project by exploration expenditure of $250,000 prior to 2 July 2016. Alligator may maintain its Stage 1 interest by sole funding to a total of $2.0 million for exploration activities prior to 2 July 2017 (Stage 2). Following completion of Stage 2, Cameco may elect to fund continuing exploration on a pro-rata basis to maintain a 49% interest or dilute its interest. If AGE fails to meet its expenditure commitments up to the end of Stage 2, AGE will forfeit its interest in the Project. On definition of a resource of 75Mlb U3O8 resource (inferred+indicated+measured), the JV must commence a NI43-101 compliant Prefeasibility Study (PFS) within 12 months of identifying a qualifying resource. Cameco may elect to manage and operate during the PFS stage and fund 51% of the PFS following making a payment of $2 million to AGE, provided they have maintained a 49% interest. Following completion of the PFS, Cameco may acquire an additional 2% of the project (for a total of 51%) by paying AGE: For a total resource of less than 100Mlb U3O8, an amount equal to 2% x Total Resource (lbs U3O8) x $5/lb U3O8. For a total resource of greater than 100Mlb U3O8, an amount equal to 2% x Total Resource (lbs U3O8) x $6/lb U3O8 less the initial PFS payment ($2 million). • Alligator has earned a 51% interest (Stage 1) in the JV and committed to Stage 2 (ASX Release 20 August 2015). • There are no known existing impediments to operating on any granted tenement within the Beatrice Project area.
Exploration done by other	• *Acknowledgment and appraisal of exploration by other parties.*	• Regional exploration has previously been undertaken by other parties in the region by Queensland Mines Ltd (1970-1972), Afmeco (1996-2001) and Cameco Australia Pty Ltd

parties		(2001-2010).
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Alligator is exploring for Unconformity Associated Style Uranium Deposits. The geology of the area being targeted is comprised primarily of Carpentarian aged sandstones of the Kombolgie Formation overlying multiply deformed meta-sediments of the lower-Proterozoic Cahill Fm and Archaean granite Gneiss Complexes.
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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *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.*	• Drill hole survey information is provided in the Appendix 1 of the ASX release. Collar positions were located by GPS with accuracies of 1-4 metres. This accuracy is considered sufficient for exploration purposes and for the style of mineralisation targeted.
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 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.*	• No mineralised intercepts have been reported.

	• *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').*	• No mineralisation widths have been reported.
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.*	• Refer Figure 1
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 results of significance have been reported within this report.
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.*	• No significant exploration data has been omitted
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth*	• This document provides an early update on an ongoing shallow drilling program which is testing three exploration targets (BT-4, Beatrice

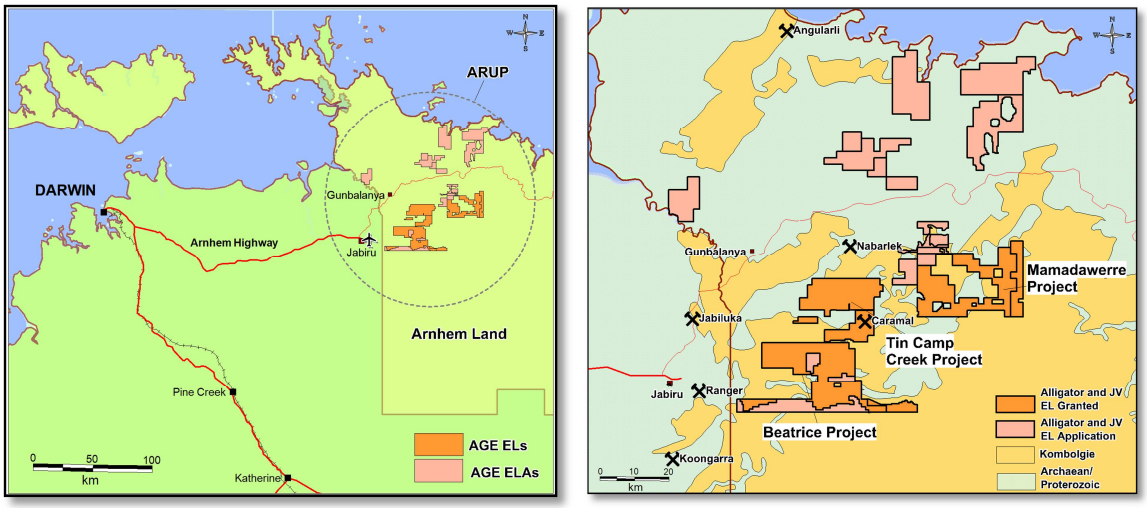
	extensions or large-scale step-out drilling). • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Prospect and BT-1). Details of the proposed drilling program were provided in an ASX release on 9 September 2015.

Competent Person's Statement

Information in this report is based on current and historic Exploration Results compiled by Mr Rob Sowerby who is a Member of the Australasian Institute of Geoscientists. Mr Sowerby is CEO and Director of Alligator Energy Ltd, 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 Sowerby consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.

About Alligator Energy

Alligator Energy Ltd is an Australian, ASX listed, company with uranium exploration tenements in the world class Alligator Rivers Uranium Province in Arnhem Land, Northern Territory. The Alligator Rivers Uranium Province hosts nearly 1 billion pounds of high grade uranium resources and past production, including the Ranger Mine and Jabiluka. The company's assets include the Tin Camp Creek Project and Joint Ventures with Cameco Australia Pty Ltd at the Beatrice and Mamadawerre Projects. Since listing in 2011, the company has defined the Caramal Resource (6.5Mlb U3O8 @ 3100ppm U3O8) and intersected high grade uranium at a number of prospects including Mintaka, South Horn and NE Myra. High Grade uranium mineralisation has also been confirmed at the historic Beatrice Prospect. The company has a strong pipeline of prospects with known high grade mineralisation and potential to discover large (>100Mlb U3O8) high grade resources.



Project Location Diagrams