

QUARTERLY ACTIVITIES REPORT

FOR QUARTER ENDED 30 September 2016

HIGHLIGHTS

Alligator Energy

ABN 79140575604

EXPLORATION

- The 2016 exploration season was completed with two great targets defined in the 'Violet-Orion Zone'
- Target **TCC4** in the Tin Camp Creek tenement (AGE 98% interest) has all the responses sought from a large concealed unconformity uranium deposit with similar interpreted characteristics to the nearby Jabiluka or Ranger deposits. It is the best target defined by Alligator since it began exploration in 2011. It is "drill ready"
- Target **BT12** in the Beatrice Joint Venture tenement (AGE 51% interest) is the largest uranium pathfinder anomaly ever defined by Alligator. It is interpreted to be the surface "footprint" of a large uranium deposit beneath the covering sandstone. A ground geophysics program is being planned to bring this to the "drill ready" stage.
- Pathfinder element responses from additional sampling at Targets **BT1** and **BT2** in the Beatrice Joint Venture tenement were not encouraging enough to warrant further work.
- Alligator's review of the **Razorback** gold prospect in the Tin Camp Creek tenement showed potential strike extensions north and south but a modest stream sediment and soil sampling program revealed only isolated weak gold values and no significant uranium values.

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ASX Code: AGE

Number of Shares:
359.9M Ordinary Shares
8.4M Unlisted Options

Board of Directors:
Mr John Main
(Exec Chairman)

Mr Paul Dickson
(Non Exec. Director)

Mr Peter McIntyre
(Non Exec. Director)

Mr Andrew Vigar
(Non Exec. Director)

Mr Greg Hall
(Non Exec. Director)

CORPORATE

- Alligator's Annual General Meeting is scheduled for 18 November 2016.

EXPLORATION

Overview

Alligator continued to focus its exploration efforts in the “province-scale” Violet-Orion Zone of uranium mineralization, anomalism and pathfinder elements that stretches for 40 kilometres across the company’s Beatrice and Tin Camp Creek tenements. See Figure 1.

Uranium decay pathfinder element sampling of covering sandstone has been the principal tool used by Alligator to identify and define the footprint of large concealed unconformity uranium deposits. In 2016 samples collected from surface and from drill core and drill cuttings were used to locate and define anomalous pathfinder elements at **BT1**, **BT2**, **BT12** and **TCC4**. Finding the mineral sought or in this case its direct radioactive decay products is the first step to successful discovery. The responses at **BT12** and **TCC4** were of the size and intensity sought.

Then for those areas with large and intense anomalous uranium pathfinder responses such as **BT12** and **TCC4** Alligator reviewed existing geophysical survey data. This was to identify not just basement geology but more importantly conductors in the basement rocks below the diffuse pathfinder anomalies in the sandstone. These could represent the responses of minerals directly associated with the uranium deposits sought and would be the focus for the drill holes to test that target.

An outstanding coincident sandstone pathfinder element anomaly and basement conductor anomaly within a favourable stratigraphic setting at Target **TCC4** makes this the best target yet defined by Alligator in the Province.

At **BT12** additional surface sampling of covering sandstone enlarged the initial pathfinder anomaly to 500m x 2000m and defined a sub parallel anomalous feature 500m north of this very large response. This is the biggest pathfinder anomaly defined by Alligator and has extremely anomalous pathfinder element values and ratios. The next step was to identify and define basement conductors to focus drilling. Unfortunately no appropriate geophysical survey data was available for this target area. Alligator’s preferred technique of SAM geophysical surveying was not applicable so instead Alligator is likely to utilise the CSAMT geophysical technique. For scheduling, operational and budget reasons this survey was deferred until the next exploration season.

Additional sampling of sandstone and drill-hole material at the targets **BT1** and **BT2** in the Beatrice JV tenement showed that no further work is warranted.

Alligator’s review of the **Razorback** gold prospect in the western part of the Tin Camp Creek tenement, defined by previous mineral explorers, showed it to be open to the north and south. It was of interest as a gold prospect but also as a different pathfinder response to a uranium deposit as some unconformity uranium deposits contain significant precious metal contents. A modest sampling program consisting of 71 stream sediment samples, 77 rock-chip samples and 141 soil samples revealed isolated high values restricted to very narrow quartz breccia structures, and no vector toward a possible uranium deposit was identified.

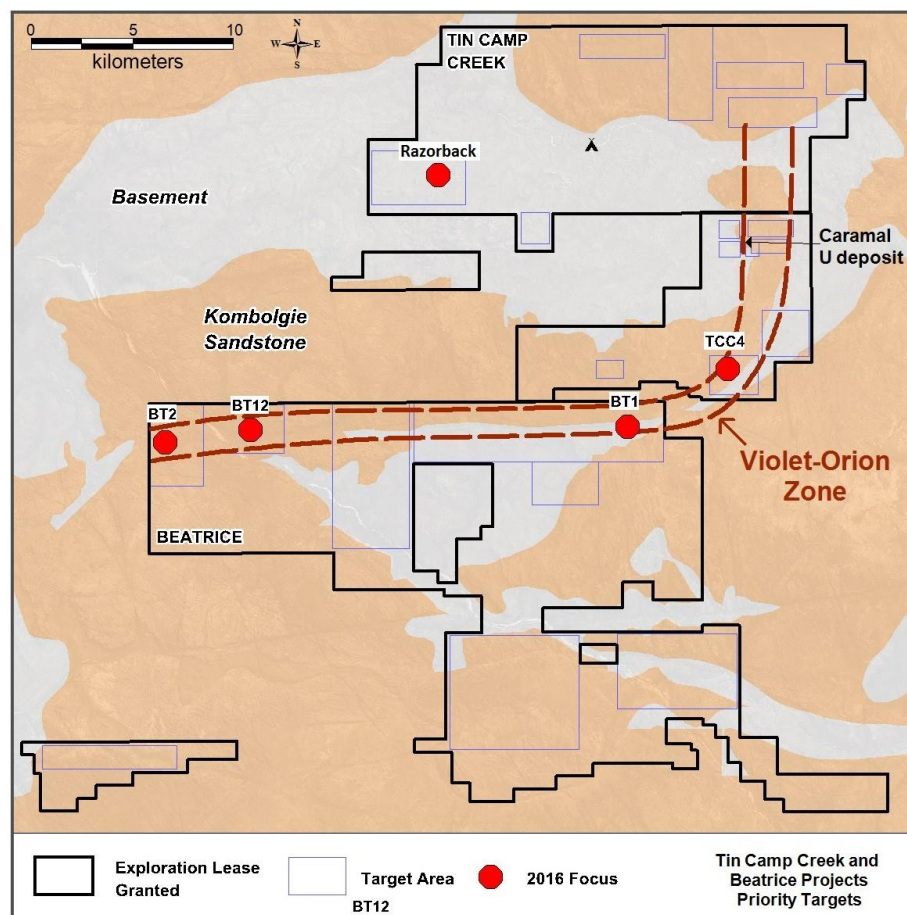


Figure 1: **Violet-Orion Zone** showing 2016 targets.

Tin Camp Creek

Three standout targets worthy of additional exploration are located within the Tin Camp Creek project tenure. **TCC2**, **TCC4** and **TCC13** are all located within the 'Violet-Orion Zone' defined in Alligator's ASX announcement dated 23 June 2016. Alligator focused on **TCC4** in 2016

(i) **TCC4**

TCC4 has all of the characteristics sought by Alligator in a high quality drill target. Coincident strong extensive surface pathfinder element anomalism and strong coherent basement SAM conductor features are stand out features. Two holes drilled nearby in 2014 returned strong downhole pathfinder element anomalism and intense chlorite alteration within the preferred Cahill Formation host stratigraphy beneath the covering sandstone.

Re-logging, petrographic analyses and pathfinder element analyses of drill core from these two holes showed abundant graphite associated with uranium pathfinder elements within Cahill Formation units. Projecting these units up dip and along strike from the two drill holes to the unconformity showed they coincided with a zone of high pathfinder elements and a very strong conductor extending 2,500 metres along strike. In addition the intrusive dolerites near this feature show a second conductor response associated with chlorite alteration and have known uranium mineralisation.

Figure 2 below is an interpreted cross section built from the **TCC4** pathfinder element, conductor and geological data. It shows two potential large unconformity uranium deposit targets and the drill holes required to test these.

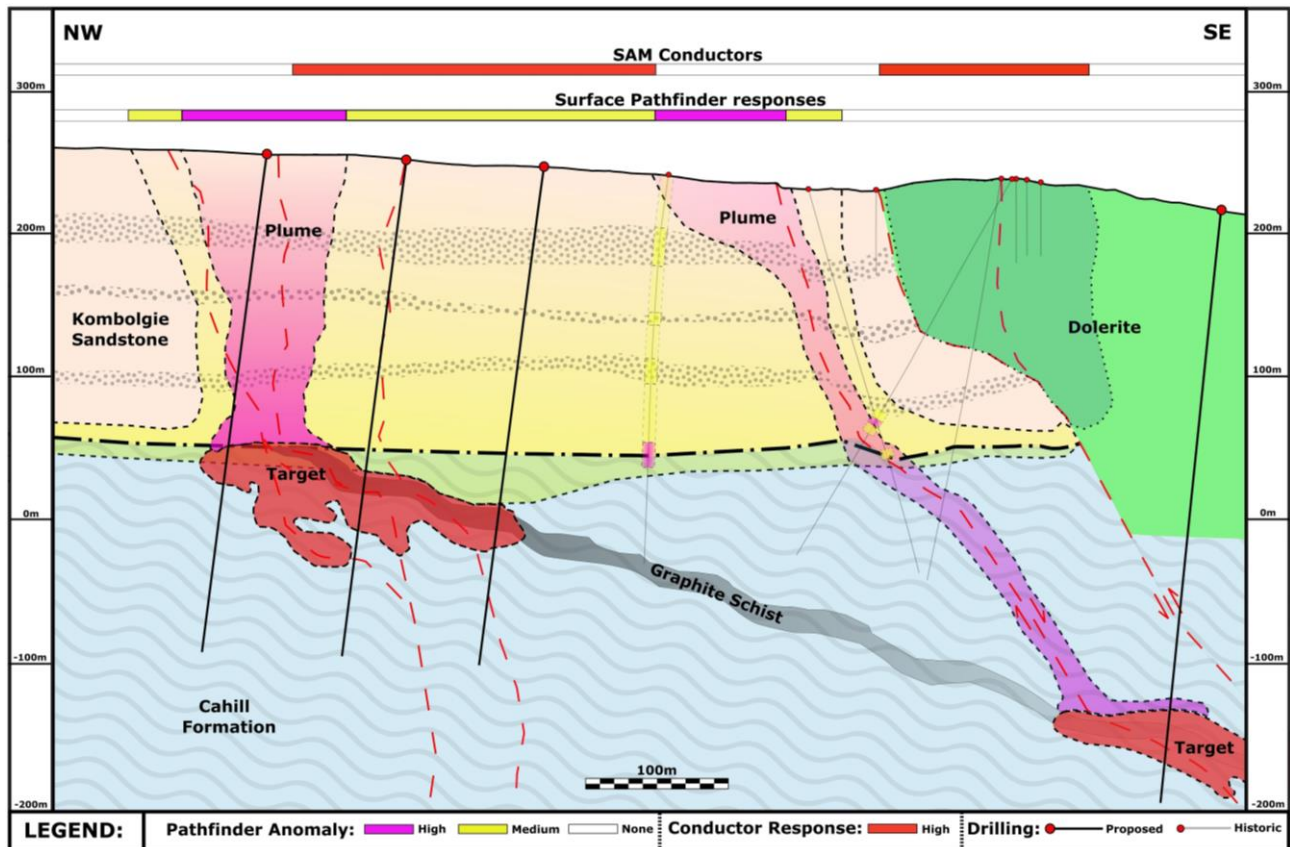


Figure 2: TCC4: Schematic cross section showing drill targets.

The untested feature at **TCC4** is the highest quality target yet generated by Alligator in the Province with the potential to yield a large, Jabiluka-style uranium deposit. However a modest amount of drill site access and clearance work is required to finalize actual drill sites.

Figure 3 below shows the surficial representation of the coincident SAM conductor and pathfinder elements at **TCC4**.

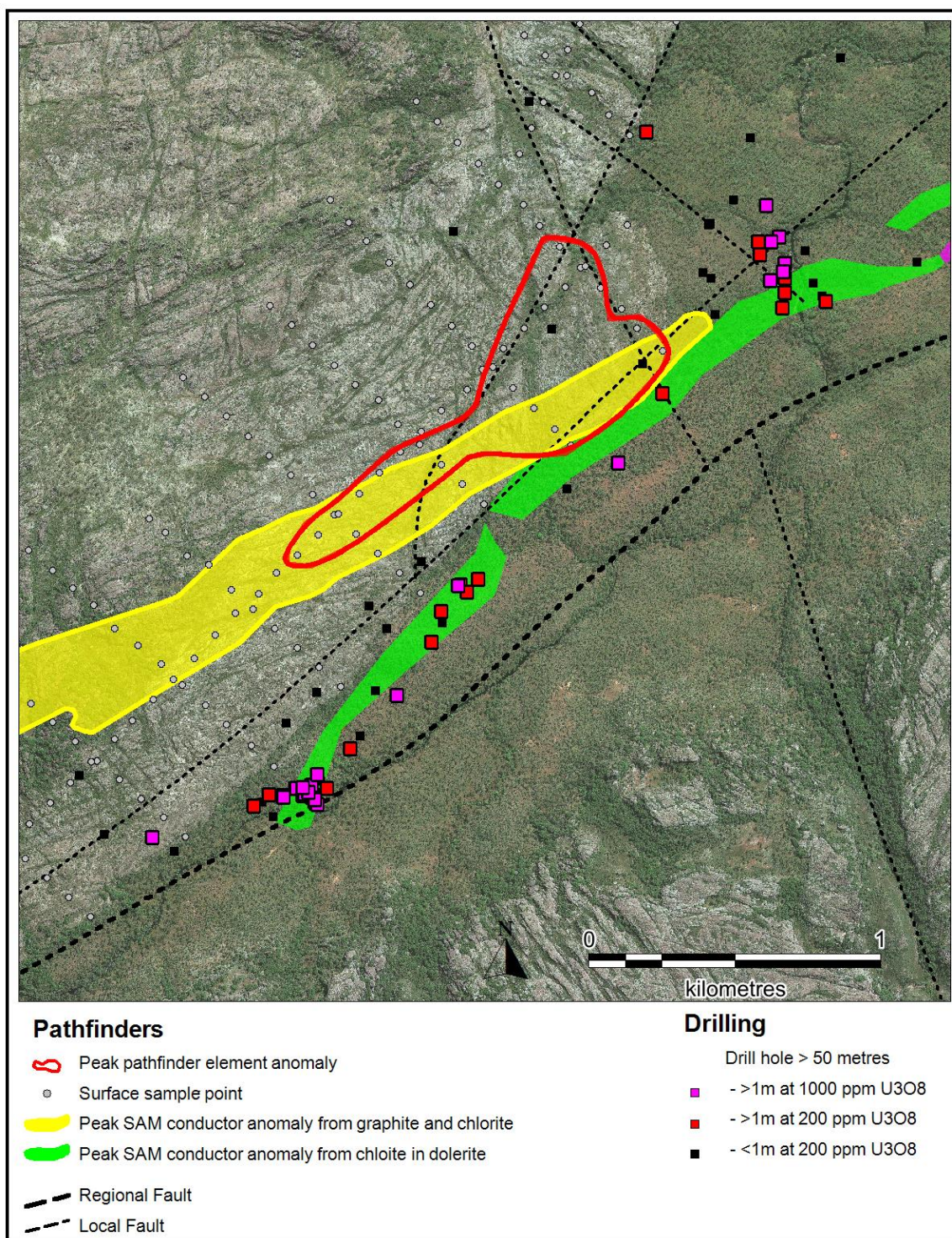


Figure 3: TCC4 Pathfinder Elements and SAM Conductor Anomalies

The interpreted basement geology at the unconformity below the sandstone cover at **TCC4** is shown in Figure 4 below.

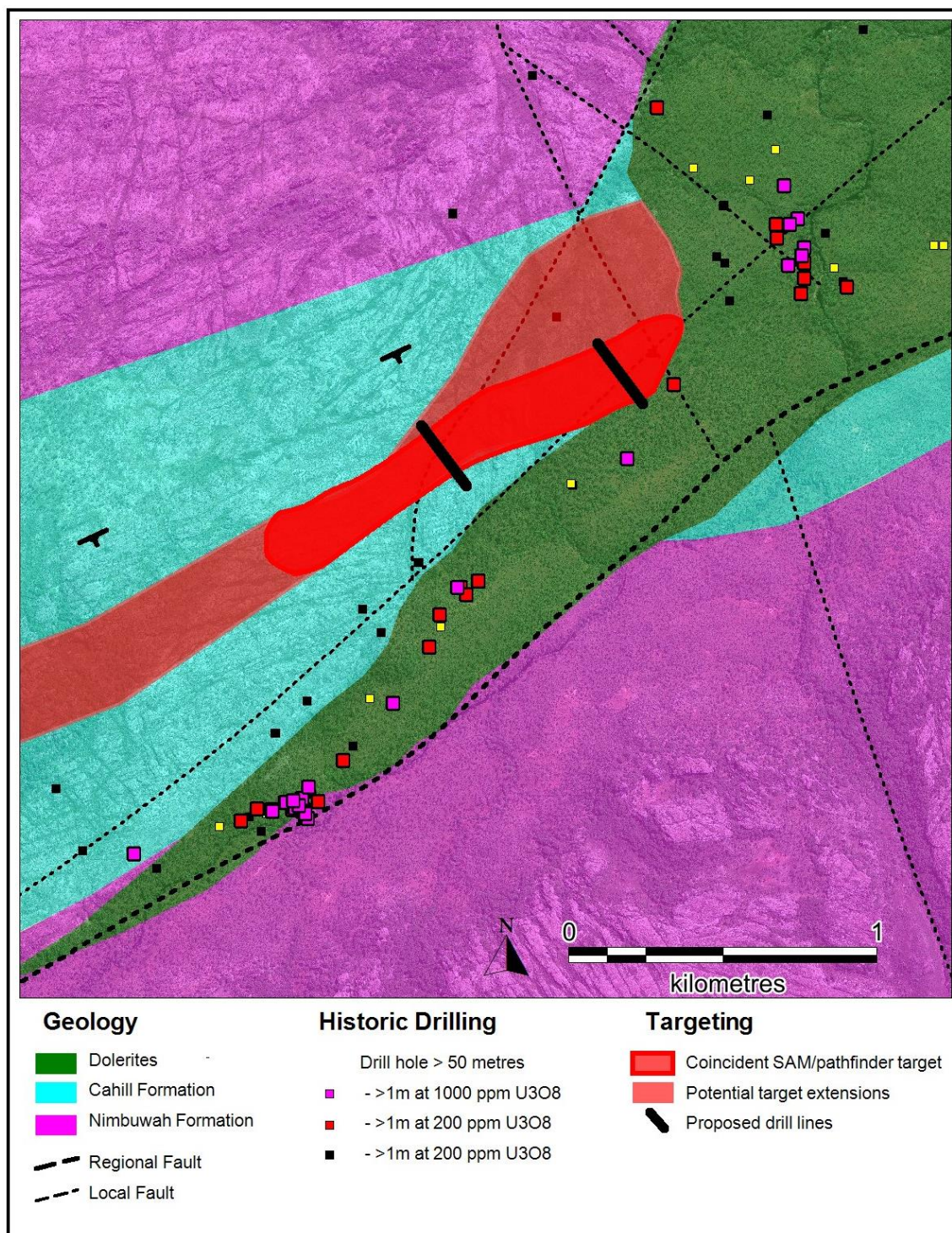


Figure 4: TCC4: Interpreted Basement Geology, Targets and Drill Lines

Beatrice Joint Venture

Three targets **BT1**, **BT2** and **BT12** were the focus of exploration in the Beatrice Joint Venture tenement. This work revealed the largest and most intense pathfinder anomaly Alligator has defined at **BT12**.

(i) BT 12

The **BT12** target is located within the 'Violet-Orion Zone' on the northern side of the Beatrice Fault. Geological and geophysical work indicates that Cahill Formation stratigraphy the host rocks for the known uranium deposits in the Alligator Rivers Uranium Province was likely to exist beneath the covering sandstone in this area.

Sampling and analysis of this sandstone for uranium pathfinder elements in 2015 defined a significant anomaly in the target area. In 2016 Alligator collected and assayed an additional 95 surface sandstone samples in the target area from seven north-south transects.

Results show two distinct areas of pathfinder anomalism (Figure 5). The anomaly defined in 2015 lies along the main Beatrice Fault. The 2016 sampling expands this anomaly considerably, showing it to be much broader (500m) and longer (2000m), extending further north under the sandstone and further east along the Beatrice Fault.

A new separate pathfinder anomaly was defined 500 metres further north, running sub-parallel to the first and extending discontinuously over more than 2000 metres. The depth of sandstone in the area is estimated to be 250 metres. Uranium lead isotope ratio analysis indicates a likely basement-hosted mineralisation source.

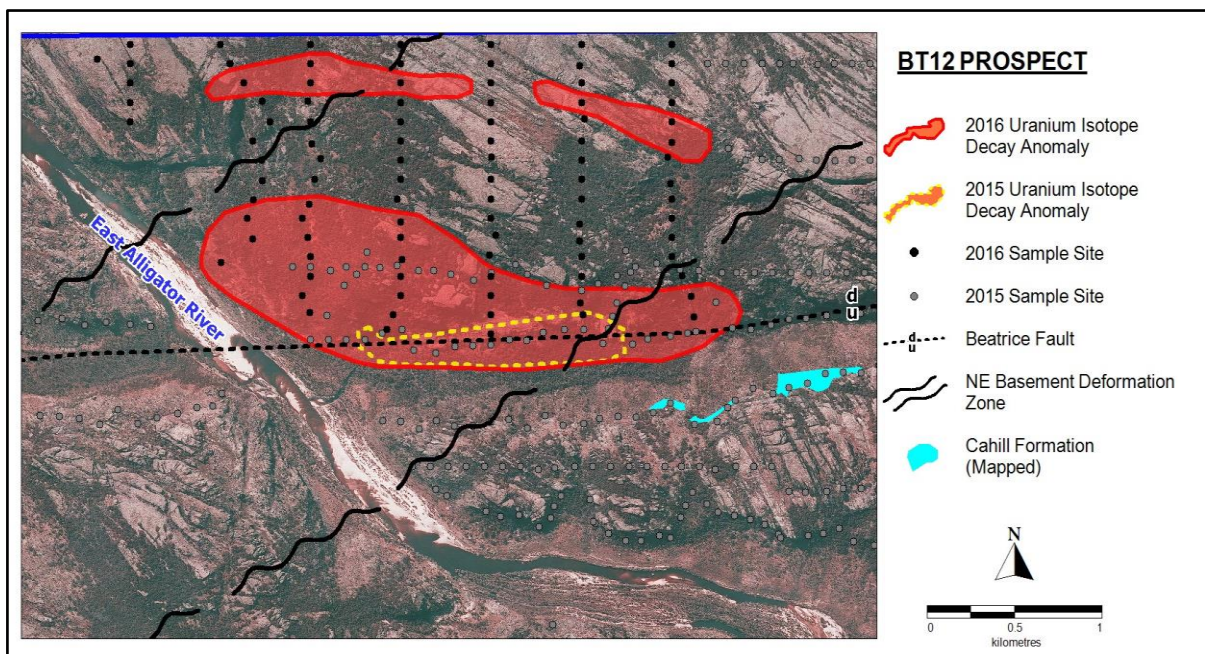


Figure 5 – Pathfinder Element Anomaly at BT12

Our preferred geophysical survey technique is unlikely to be an effective tool in this area so Alligator has assessed other potentially suitable geophysical techniques to identify the responses of alteration associated with any uranium mineralisation beneath the sandstone. Controlled Source Audio Magneto Tellurics (CSAMT) is likely to be the technique used.

This geophysical work is necessary to define the optimum location of drill holes to test the target. Survey design and costing is being progressed during the December 2016 quarter.

Results from BT12 are most encouraging and rank the prospect as a very high quality target.

(ii) BT2

The **BT2** target area incorporates the Violet prospect and the area around it. The Violet prospect was identified and drilled by Cameco Australia (Cameco). During the quarter, Alligator collected 205 surface sandstone samples from seven transects, along with 65 samples from drill core from Cameco's drill holes and analysed them for uranium pathfinder elements.

The drill core analyses showed an upper and a lower zone of anomalism. The upper zone shows a plume of anomalous values around the known uranium mineralisation within the dolerites along the Beatrice Fault. The lower zone occurs near the unconformity separating the overlying sandstones from the basement host rocks. This response is likely to be dispersion from a concealed basement uranium source some distance from the drill holes. This lower plume is encouraging for the broader prospectivity of the region.

Results from surface sampling at **BT2** confirmed but failed to significantly increase the surface foot print of the known anomaly occurring on the southern side and proximal to the Beatrice Fault (Figure 6). Uranium and lead ratio analysis suggest the source for this strong surface anomaly is dispersion from the known dolerite hosted mineralisation within the Beatrice Fault. The isotope ratios observed are regarded as highly anomalous considering the amount of known mineralisation and could indicate the potential for further dolerite hosted mineralisation within the main fault system. This is not considered a prime target and no further work is currently proposed at **BT2**.

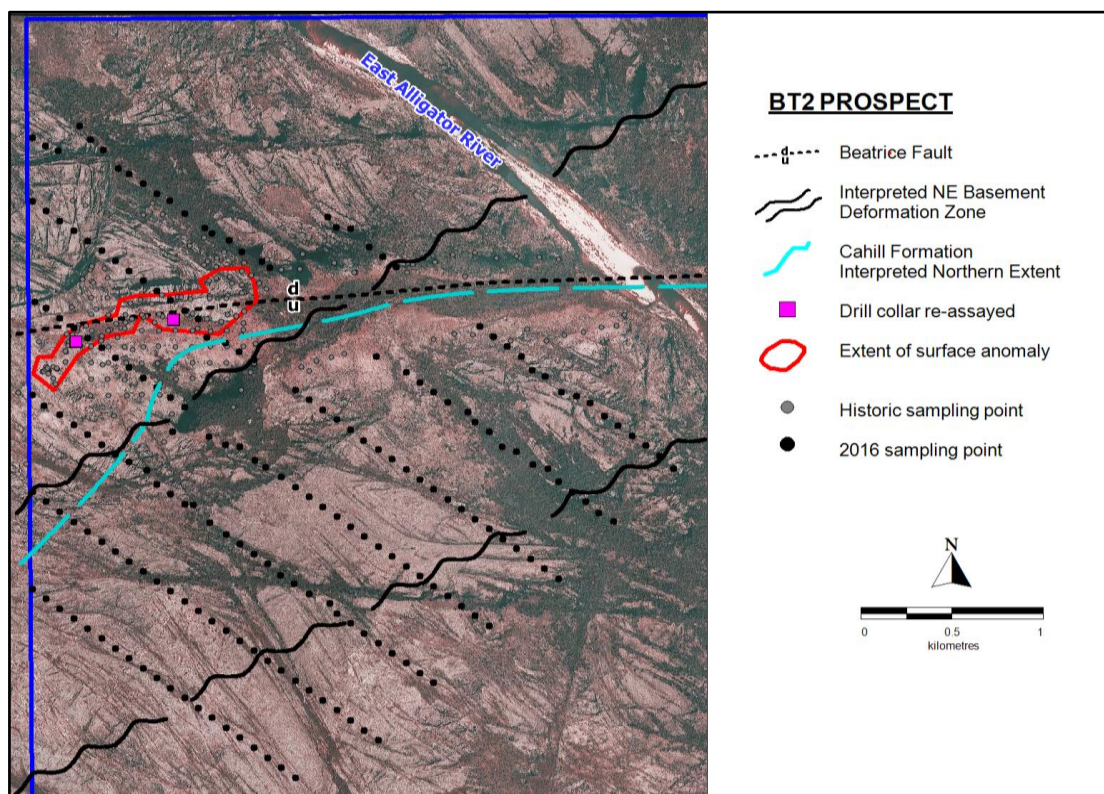


Figure 6 – Pathfinder element results at BT2

(iii) BT 1

A further 31 sandstone samples were collected from **BT1** and submitted for uranium pathfinder analysis. Results from these additional samples failed to show any pathfinder anomalism extending under Kombolgie cover, however further anomalism was identified extending pathfinder responses along the Beatrice fault. This extended response has interpreted to belong to a more distant uranium source along the fault system.

(iv) Sole Funding

Alligator earned a 51% interest in the Beatrice Joint Venture in 2015. Since then Cameco has elected not to contribute to the cost of the 2016 exploration programs. Alligator has elected to increase its interest in the Joint Venture by solely funding these work programs. Cameco may choose to recommence funding of its reduced interest at the commencement of future phases of the work program. The level of the dilution of Cameco's interest during 2016 will be determined once the JV audit for the calendar year is completed.

Razorback Gold Prospect

The **Razorback** gold prospect falls within the Tin Camp Creep project covering an approximate 20km² area. Work conducted during the 2016 field season comprised a total of 289 surface samples across the prospect and returned only isolated anomalous gold results associated with minor quartz breccia structures. Figure 7 below shows the distribution of surface sampling across the Razorback prospect area by returned gold values. With a known precious metal content to the neighbouring Ranger and Jabiluka uranium ore bodies, the sampling for anomalous gold provides a vectoring technique for similar deposits. The isolated and non-contiguous nature of anomalous samples has failed to highlight any continuous gold or uranium occurrence.

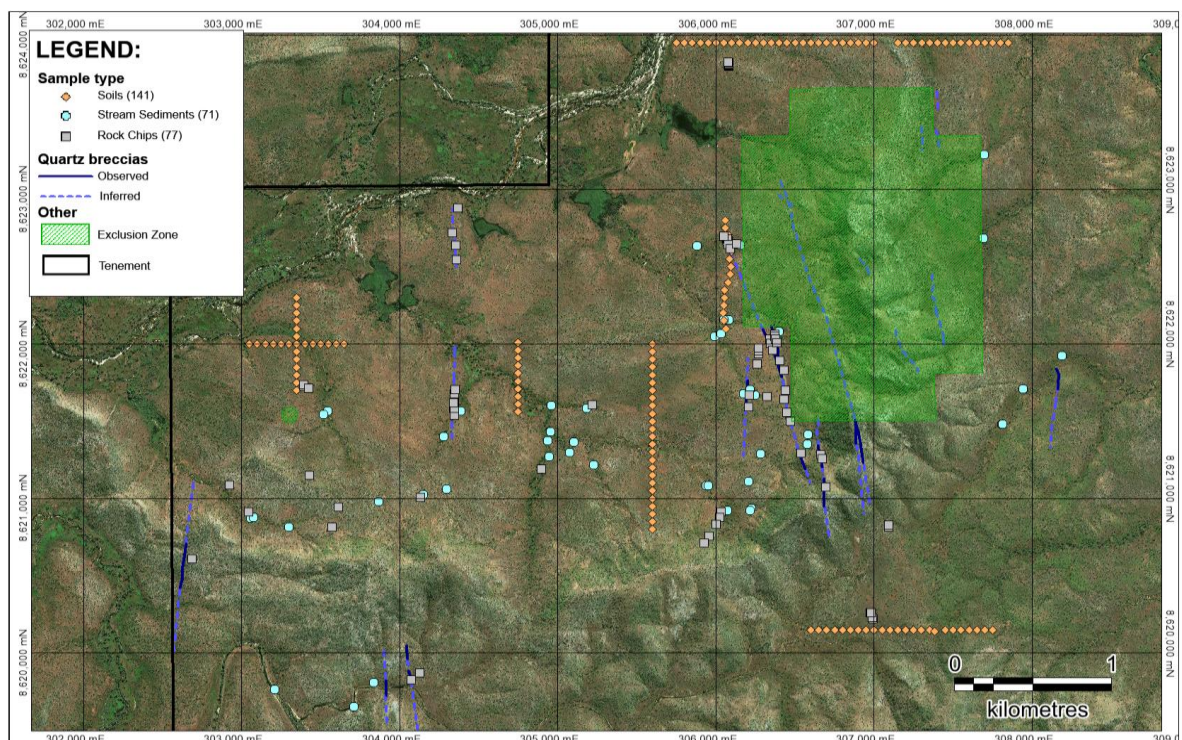


Figure 7 – Razorback surface sampling distribution

Research and Development (R&D)

Alligator's R&D program is focused on developing innovative techniques for identifying and targeting covered and fully-preserved unconformity uranium deposits beneath the covering Kombolgie Sandstone. In particular, investigation and experimentation is being undertaken on innovative applications of radiogenic isotope geochemical testing and Sub Audio Magnetics (SAM) geophysical techniques. Alligator is preparing a claim for a refund of expenditure incurred during 2016 on this R&D.

CORPORATE

Annual General Meeting

The Annual General Meeting will be held at the offices of Hopgood Ganim, Level 7, Waterfront Place, 1 Eagle St, Brisbane, Qld 4000 on 18 November 2016, at 9.30 am (Brisbane time). Shareholders are encouraged to attend in person or to complete and return their proxies prior to the closing date of Wednesday 16 November 2016.

Competent Person's Statement

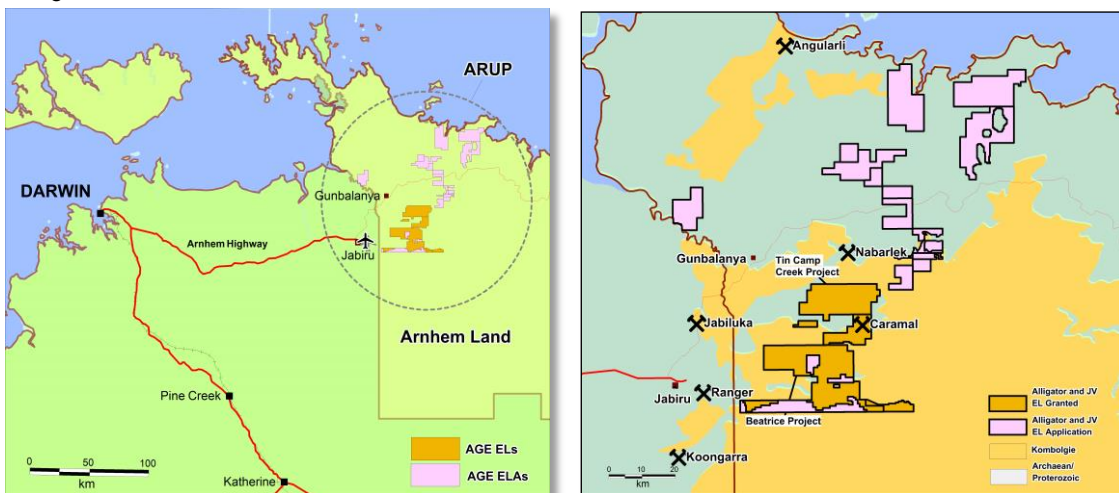
Information in this report is based on current and historic Exploration Results compiled by Mr Andrew Peter Moorhouse who is a Member of the Australasian Institute of Geoscientists. Mr Moorhouse is an employee of Alligator Energy Limited, and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Moorhouse 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, exploration company with uranium exploration tenements in the world class Alligator Rivers Uranium Province in Arnhem Land, Northern Territory. The Alligator Rivers Uranium Province contains nearly 1 billion pounds of high grade uranium resources, including past production from the Ranger Mine and the undeveloped Jabiluka deposit. The company's Tin Camp Creek and Beatrice tenements form the focus of its exploration but the company also assesses other opportunities as they arise. The exploration target is a deposit containing no less than 100 million pounds of uranium preserved beneath covering sandstone.

The company is researching and developing novel uranium decay isotope geochemical techniques and has modified and is applying airborne geophysical techniques with the objective of detecting such concealed targets. From its 2014 and 2015 field work the company has identified new targets which are being analysed ahead of a decision to drill test. The previously drilled Caramal (6.5Mlb U3O8 at 3100ppm U3O8) and Beatrice deposits represent eroded remnants of once much larger deposits.

The company has in excess of 1000km² of Exploration Licence applications awaiting grant within the Alligator Rivers Uranium Province.



Project Location Diagrams and Exploration Licences

FOR FURTHER INFORMATION, PLEASE CONTACT

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Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

Name of entity

Alligator Energy Limited

ABN

79 140 575 604

Quarter ended ("current quarter")

30 September 2016

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	(354)	(354)
(b) development	-	-
(c) production	-	-
(d) staff costs	(51)	(51)
(e) administration and corporate costs	(101)	(101)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	3	3
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Research and development refunds	-	-
1.8 Other (provide details if material)	-	-
1.9 Net cash from / (used in) operating activities	(503)	(503)

2. Cash flows from investing activities		
2.1 Payments to acquire:		
(a) property, plant and equipment	-	-
(b) tenements (see item 10)	-	-
(c) investments	-	-
(d) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10)	-	-
	(c) investments	-	-
	(d) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (tenement security bond)	(20)	(20)
2.6	Net cash from / (used in) investing activities	(20)	(20)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of shares	-	-
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	-
3.4	Transaction costs related to issues of shares, convertible notes or options	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	-	-

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	864	864
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(503)	(503)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(20)	(20)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	-
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	341	341

5. Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1 Bank balances	91	214
5.2 Call deposits	250	650
5.3 Bank overdrafts	-	-
5.4 Other (provide details)	-	-
5.5 Cash and cash equivalents at end of quarter (should equal item 4.6 above)	341	864

6. Payments to directors of the entity and their associates

- 6.1 Aggregate amount of payments to these parties included in item 1.2
- 6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

Current quarter \$A'000
14
-

Director fee payments and superannuation

7. Payments to related entities of the entity and their associates

- 7.1 Aggregate amount of payments to these parties included in item 1.2
- 7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

Current quarter \$A'000
-
-

N/A

8. Financing facilities available <i>Add notes as necessary for an understanding of the position</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
8.1 Loan facilities	-	-
8.2 Credit standby arrangements	-	-
8.3 Other (please specify)	-	-
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

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9. Estimated cash outflows for next quarter	\$A'000
9.1 Exploration and evaluation	(130)
9.2 Development	-
9.3 Production	-
9.4 Staff costs	(43)
9.5 Administration and corporate costs	(143)
9.6 Other (provide details if material)	-
9.7 Total estimated cash outflows	316

10. Changes in tenements (items 2.1(b) and 2.2(b) above)	Tenement reference and location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
10.1 Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced	-	-	-	-
10.2 Interests in mining tenements and petroleum tenements acquired or increased	-	-	-	-

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.



Sign here: Date: 31 October 2016
(Company secretary)

Print name: M C Meintjes

Notes

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.