

ASX Announcement

13 August 2018



Alligator River Project - Commencement of Drilling

Key Highlights

- **Vimy's Alligator River Project in the Northern Territory represents the largest granted land package in a world-class uranium province**
- **Granted tenements include the same important rock units that host Jabiluka and Ranger uranium deposits**
- **A 29-hole drill program is underway to extend known mineralisation at Angularli and confirm prospectivity at Such Wow**
- **The program is targeting high-angle shear deposits which historically have exceptional uranium grades and low impact with small development footprint**

Vimy Resources Limited ('Vimy' or 'the Company') is pleased to provide an update on its activities at the Alligator River Project in the Northern Territory. The Company commenced an 8,600m reverse circulation (RC) exploration drilling program on 13 August at Angularli and Such Wow. Both these prospects are in the King River-Wellington Range tenement blocks and are the subject of a Joint Venture with Rio Tinto Exploration Pty Limited ('Rio Tinto'), a wholly owned subsidiary of Rio Tinto Ltd, with current JV interests of Vimy 75%: Rio Tinto 25%.

During the current field season, drilling is focused on two outcomes. Firstly, to extend areas of known mineralisation at Angularli, both along strike of, and parallel to, the current resource, which stands at 0.91Mt @ 1.3% U₃O₈ for 26 Mlbs (Vimy 75%) (as per ASX release of 20 March 2018). This program comprises fourteen holes for 4,650m.

The second drill program is at Such Wow, 15km south-southwest of Angularli. This prospect has not been drilled previously, however it is highly prospective for 'Angularli-like' deposits based on Vimy's assessment of surface sampling, and mapping of geology, alteration, and structures. This program comprises 15 holes for 3,950m.

Other planned field work includes surface geochemical sampling, mapping, rock-chip sampling, and passive seismic data collection. Part of this program is being done across the Angularli area to provide baseline data for other future surveys.

Mike Young, the CEO of Vimy Resources said, *"This is our first exploration season at the Alligator River Project. What makes this project really exciting is the strong similarity between the geology of Alligator River and the Athabasca Basin in Canada. The key to exploration success is the presence of an important rock unit called the Cahill Formation which hosts both the Jabiluka and Ranger deposits, which are absolutely world class. The Cahill Formation is the 'Golden Mile Dolerite' of uranium."*

"Alligator River is an important project for us as it provides Vimy with a significant resource pipeline on top of our flagship Mulga Rock Project."



Background

Vimy owns the largest granted tenement package in the Alligator River Uranium Province (ARUP), in the Northern Territory, Australia (see Figure 1). It is widely considered to be one of the top three uranium exploration districts in the world, alongside the Athabasca Basin in Canada, and the Chu-Sarysu and Syrdarya Basins in Kazakhstan. The ARUP hosts unconformity-related uranium deposits including Ranger, Jabiluka, and Nabarlek. The ARUP has a proven exploration track record with over 750Mlbs U₃O₈ in mineral resources (mined and current) and has produced a total of 312Mlbs of uranium over the past 65 years.

In spite of the enormous prospectivity of the ARUP, Australia's Three-Mine Uranium Policy (1984-1996) resulted in very little exploration in the region, while modern exploration methods resulted in significant growth in the Athabasca Basin with the discovery of Cigar Lake and McArthur River.

Vimy's land holding comprises three separate tenement packages covering a total area of 3,865km²:

- King River-Wellington Range project (1,675km²) - Vimy 75%: Rio Tinto Exploration 25%
- Algodó-Beatrice project (500km²) - Vimy 100%
- Mt Gilruth project (1,690km²) - Vimy 100%

The tenements are on Aboriginal land vested in the Arnhem Land Aboriginal Land Trust and managed by the Northern Land Council. The 2018 work program has been approved by the Northern Land Council on behalf of the Traditional Landowners.

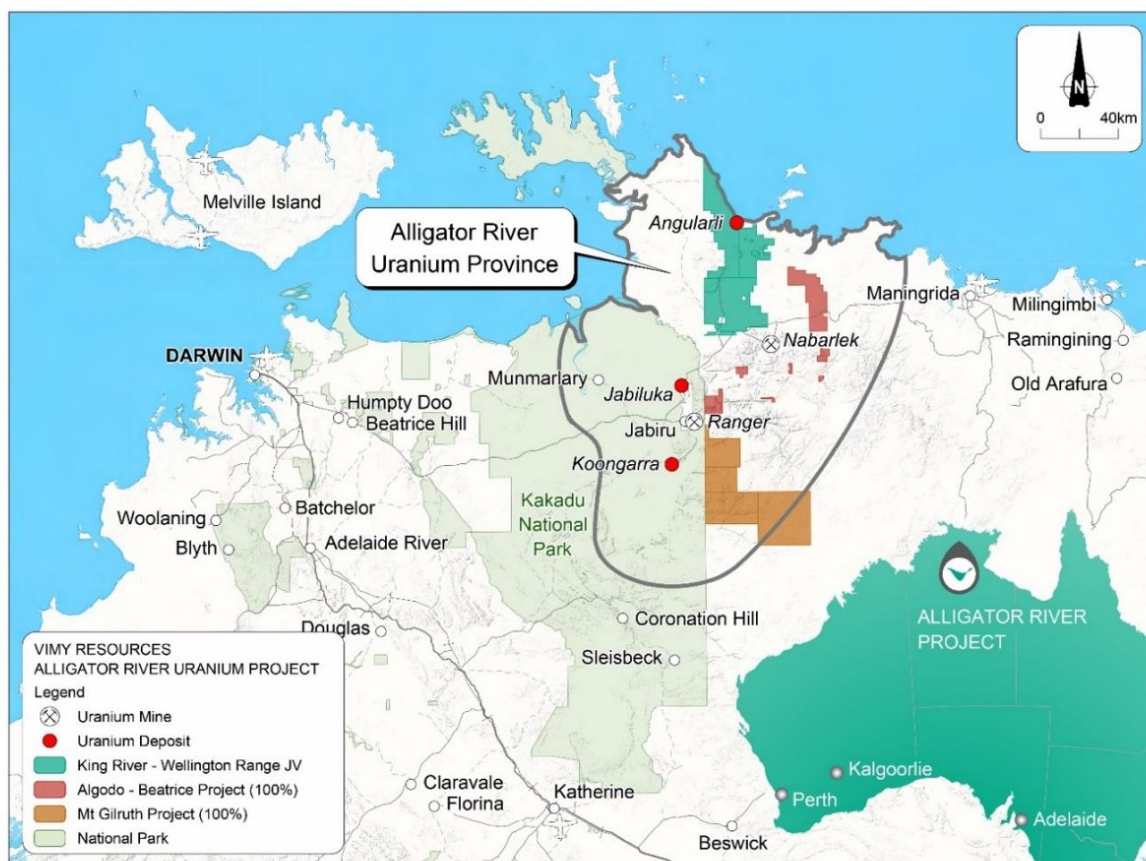


Figure 1: Alligator River Uranium Province



Details

Geology and Targets

The geological setting of the uranium deposits in the Alligator River Uranium Province is remarkably similar to the setting of deposits in the Athabasca Basin. Both are “unconformity-related” deposits where crystalline basement rocks comprising metasedimentary rocks are overlain by much younger and unmetamorphosed sandstones. The contact between basement and sandstone marks a significant break, or **unconformity**, and provides a major chemical and physical contrast providing the right conditions for mineralisation. Uranium is hosted within low to high angle shear zones either in the basement or immediately at or above the unconformity.

The deposits of the ARUP occur as either large tonnage, medium grade deposits such as Jabiluka (25Mt @ 0.55% U_3O_8 for 302Mlbs U_3O_8 ¹) or low tonnage, high grade deposits such as Nabarlek (which produced 24Mlbs U_3O_8 from 0.6Mt @ 1.84% U_3O_8) and Vimy’s Angularli (0.91Mt @ 1.29% for 25.9Mlbs U_3O_8).

The current field program is targeting high angle shear-style mineralisation at the Angularli and Such Wow prospects. This style of deposit typically hosts high grade, low tonnage deposits with the potential for operations with low capital and operating costs.

Geology

The crystalline basement rocks which host known mineralisation in the ARUP are sub-divided into two distinct units: the Cahill Formation, and the Nourlangie Schist. Rocks of the Cahill Formation comprise clastic metasediments, schists and carbonates, while rocks of the Nourlangie Schist comprise mainly quartz-biotite schists, pelites, and amphibolite.

These two units can be traced for hundreds of kilometres and host mineralisation at Ranger, Jabiluka, and Nabarlek. The presence of the **Cahill Formation** or the Nourlangie Schist is considered to be the key targeting tool for the presence of uranium mineralisation in the ARUP.

Figure 2 shows the prospective uranium basement within the ARUP.

Overlying the basement rocks of the Cahill Formation and Nourlangie Schist is a thick, hematite-quartz sandstone sequence known as the Mamadawerre Sandstone. The sandstone effectively covers all occurrences of the Cahill and Nourlangie units and known uranium mineralisation. However, unlike the Athabasca sandstone cover which is semi-consolidated and saturated with water, the Mamadawerre Sandstone is totally lithified and competent. The expensive underground mining techniques required in the Athabasca due to poor ground conditions, including ground freezing, are very unlikely to be required in Alligator River.

This sandstone cover deepens to the southeast and the granted tenements held by Vimy are restricted to cover of less than 300m. Relatively young Cretaceous (100Ma) unconsolidated sediments occur throughout the area, through which sandstone outcrops may occur.

¹ Energy Resources Australia Ltd – 2017 Annual Report

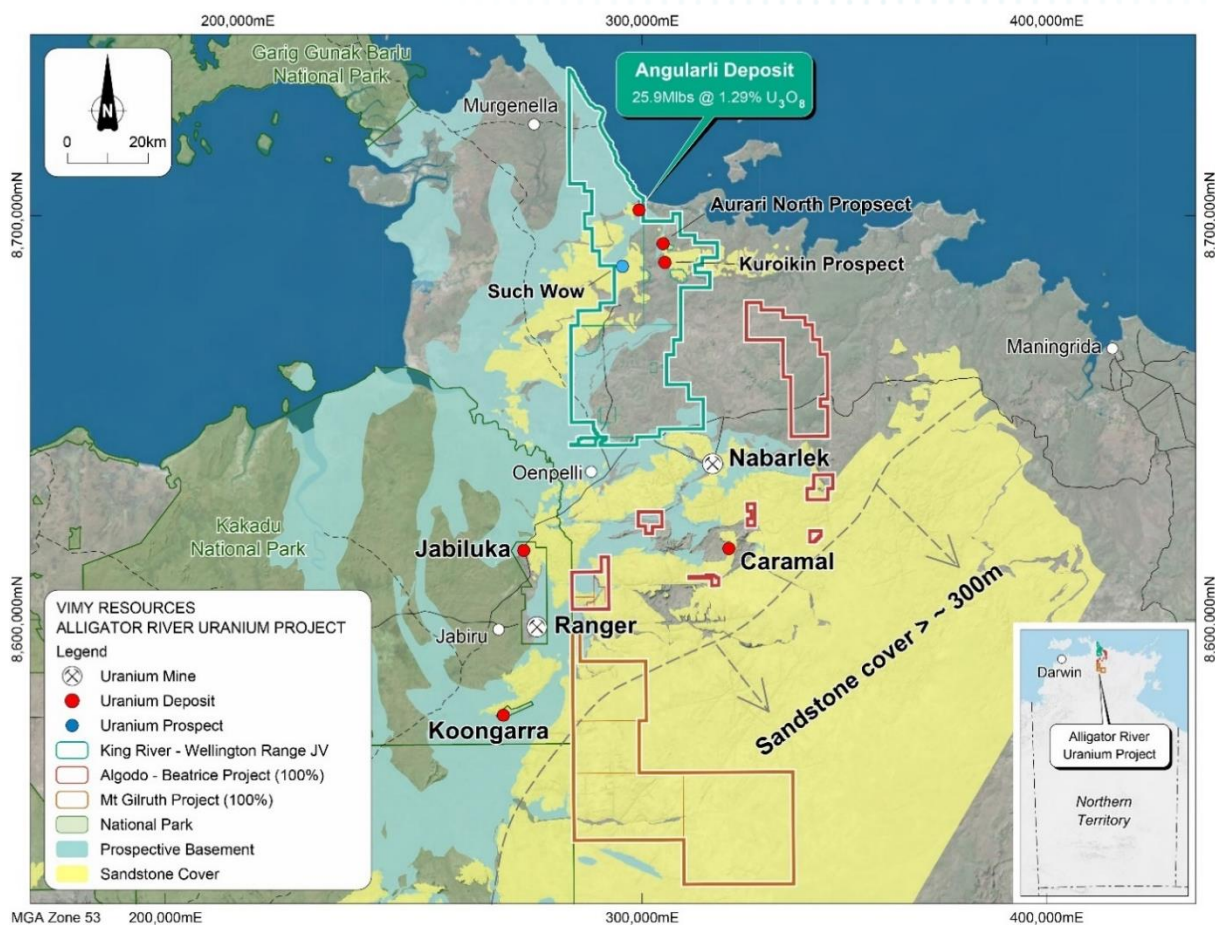


Figure 2: Prospective Basement (Cahill Formation and Nourlangie Schist) within the Alligator River Uranium Province

Mineralisation and Alteration

Previous owners of the Project, Cameco Australia developed a deep understanding on the genesis and controls on mineralisation at the King River-Wellington Range project, which has allowed Vimy to more effectively target drilling during the current field season.

Angularli Style Mineralisation

Uranium mineralisation occurs in steeply dipping, brittle fault zones in the basement metamorphic rocks, and which propagate into the overlying sandstone. The basement faults reactivated earlier ductile shear zones which predated the sandstone. The subsequent brittle faulting and brecciation has led to silica flooding and uranium mineralisation in the basement rocks, and swarms of brittle faults with broad clay alteration zones in the overlying sandstones.

Uranium mineralisation at Angularli is tightly controlled in a zone 100m x 300m with proximal alteration halo of between 0m and 50m. This proximal alteration occurs mainly in the basement rocks but also in the base of the sandstone. The zone is characterised by intense muscovite alteration and minor disseminated pyrite.

A broader distal alteration zone occurs in the sandstone along the brittle structures up to 200m away from mineralisation up dip, and as far as 1,000m away along strike. The sandstone alteration comprises strong bleaching of the hematite sandstone, and boron-rich tourmaline (dravite) alteration (see Figure 3).

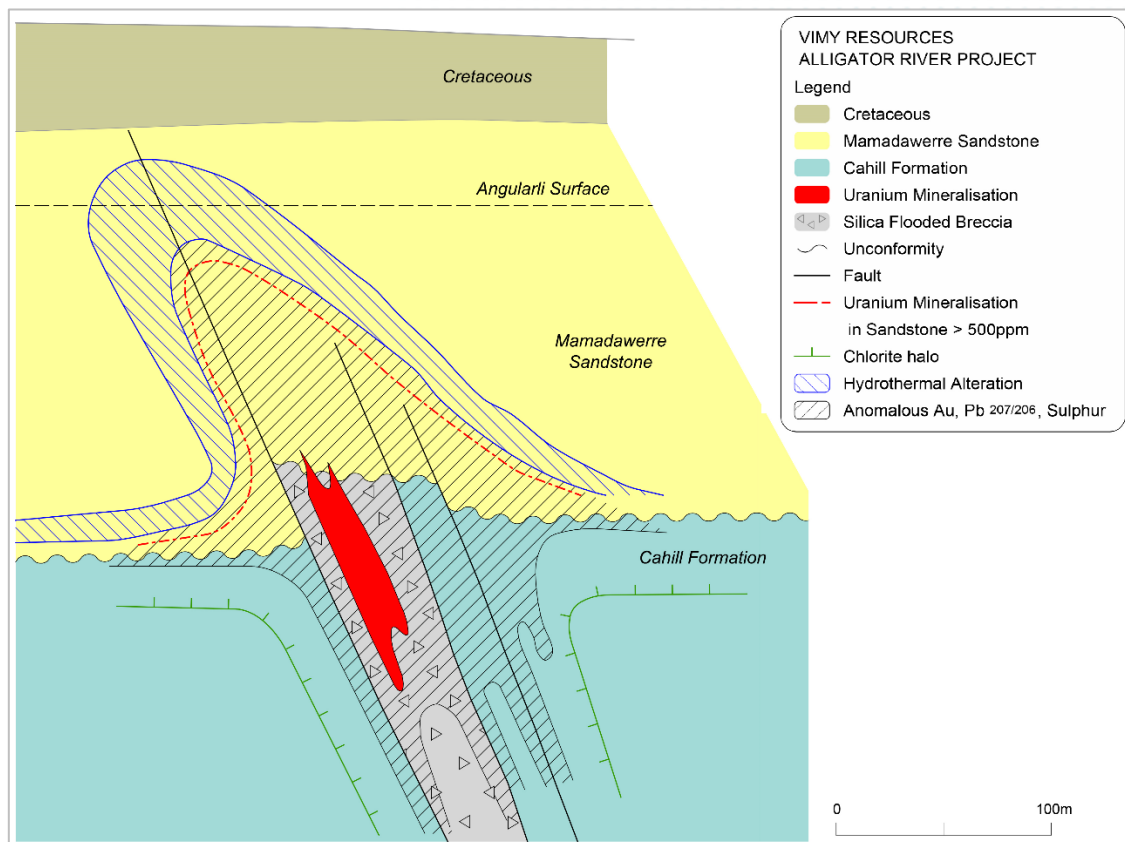


Figure 3: Geological Model of High Angle Fault Deposit and Alteration

Where prospective structures propagate through the sandstone to the surface, they occur as swarms of anastomosing and closely spaced fractures and may exhibit bleaching and clay alteration.

The alteration zones, both on surface and in drilling, are very important in exploration in the ARUP as they help to 'zero in' on uranium mineralisation as they present a larger drill target compared to the relatively smaller uranium mineralised zones. Once in an alteration zone, drilling can be more effectively targeted towards the uranium ore zone.

Angularli Drilling Program

The drilling program at Angularli is targeting an interpreted southeast extension of the Angularli main structure, which has been defined by surface mapping of sandstone outcrop and geophysical survey data. A second target, interpreted as a parallel structure, occurs 500m to the west where previous drilling has identified a large alteration zone along the structures.

The drilling program comprises eight RC holes for 2,130m at Angularli South, and six RC holes for 2,520m at Angularli West. Figure 4 shows the locations of the proposed drill holes in relation to the Angularli Resource. Figure 5 shows a cross section of Angularli and the area being targeted at Angularli West.

Drilling at Angularli will be completed by mid-October. If further uranium mineralisation is intercepted at Angularli, then additional holes may be substituted from the Such Wow program to increase the level of confidence.

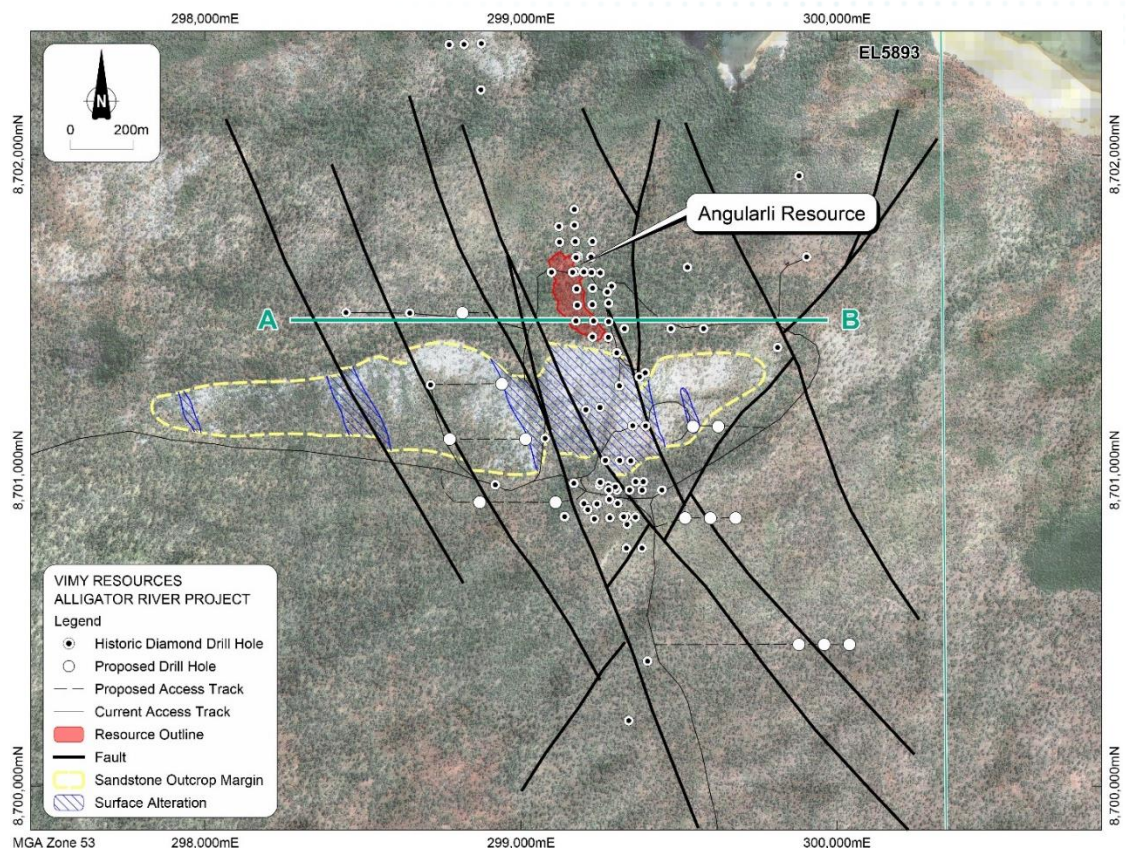


Figure 4: Angularli Drill Collar Map

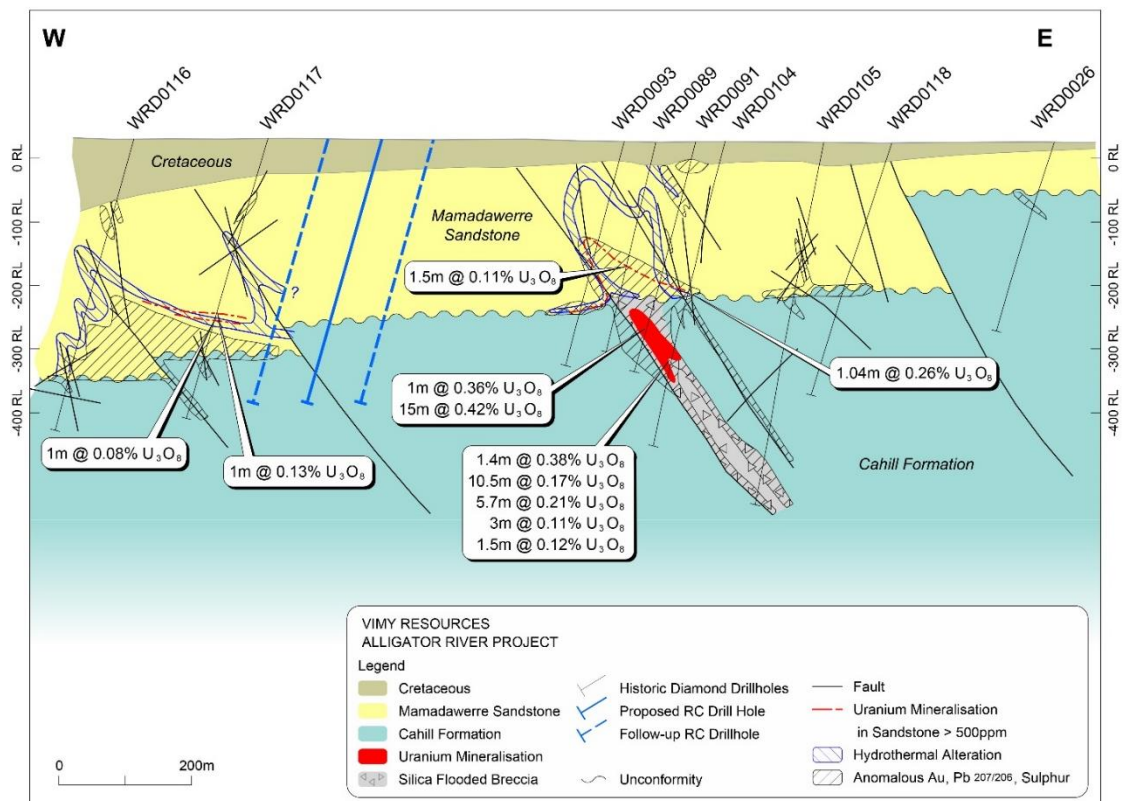


Figure 5: Angularli Cross Section



Such Wow Drilling Program

Such Wow has undergone extensive surface mapping and geophysical interpretation (see Figure 6). There is a 5km long structural corridor with uranium anomalism identified along the main fault structure. Surface alteration and bleaching of the sandstone is clearly evident at surface, showing all the same characteristics of the Angularli deposit, but on a much larger scale.

A 15 RC hole program has been planned for a total depth of 3,950m. The location of proposed drill holes is shown in Figure 6 and an interpreted cross section in Figure 7. The program is aimed at confirming that the alteration extends at depth and the system contains uranium mineralisation.

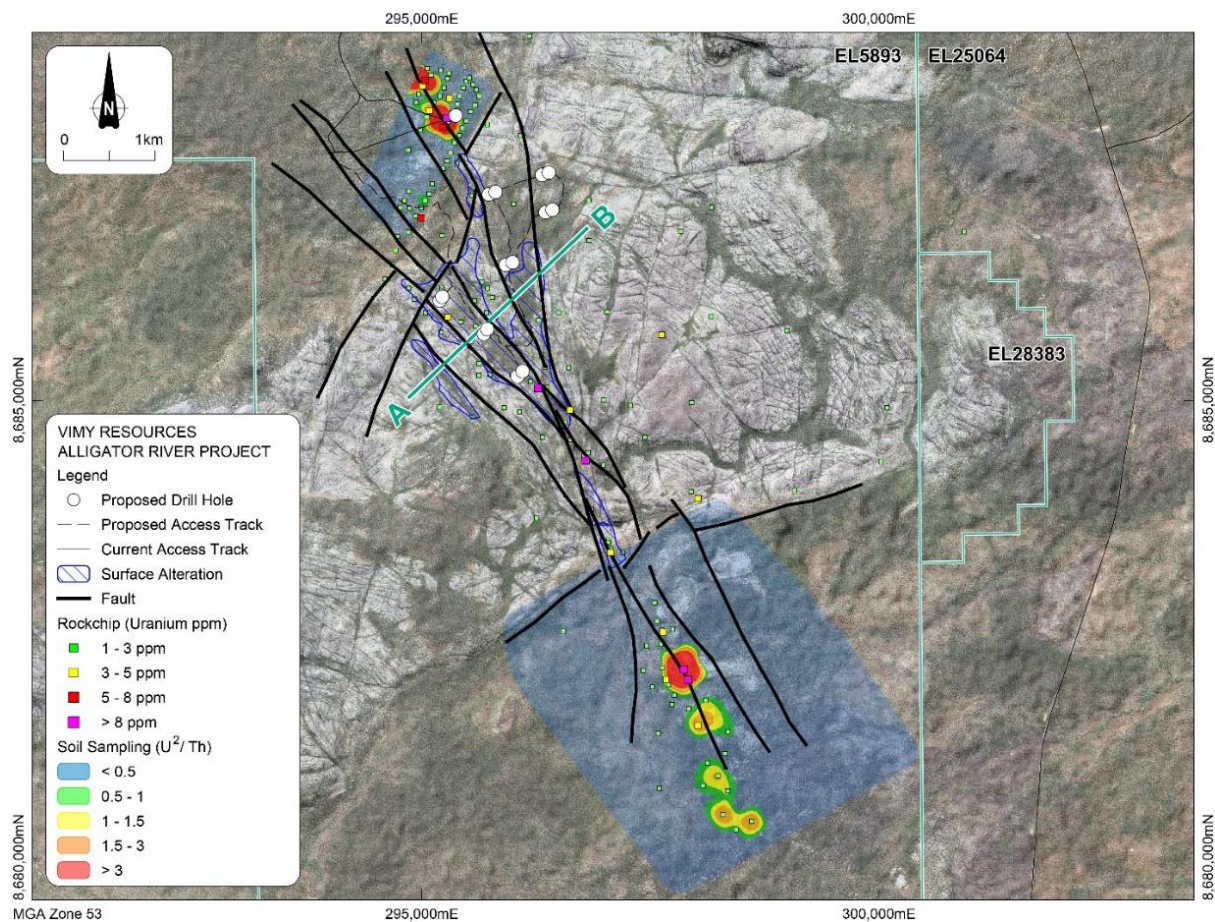


Figure 6: Surface Mapping and Proposed Drill Collar Locations

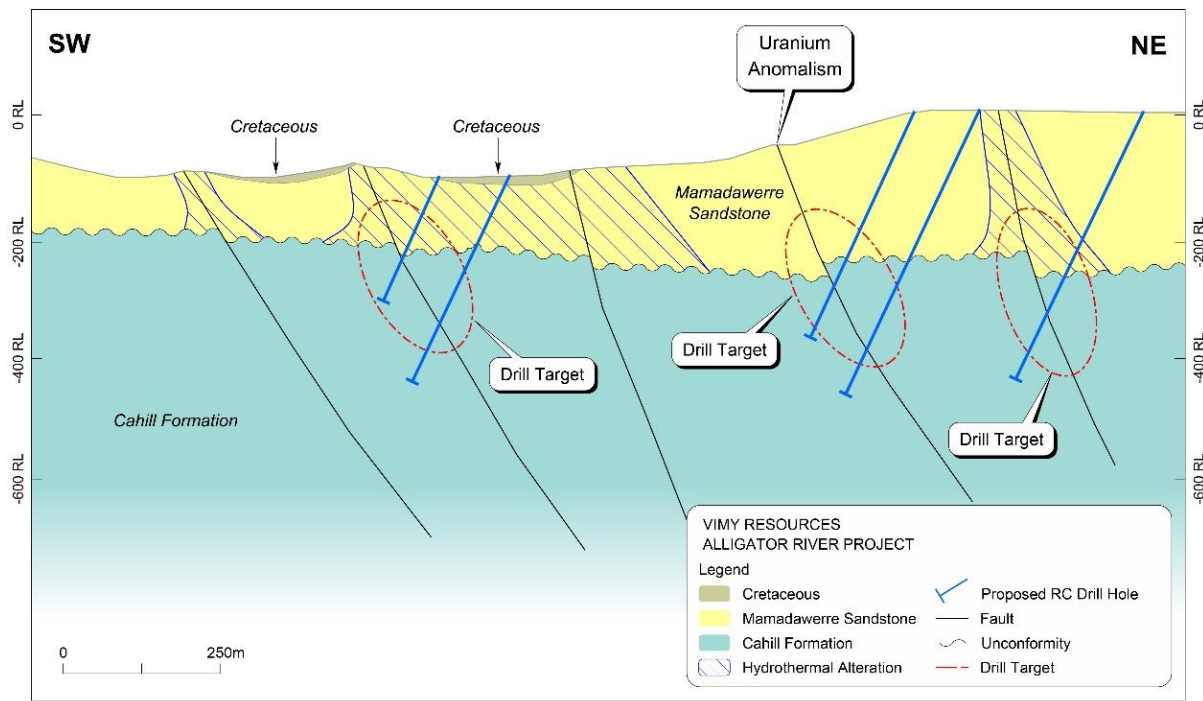


Figure 7: Such Wow Cross Section

Mike Young
Managing Director and CEO

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13 August 2018

Compliance Statement

The information in this announcement is extracted from ASX announcement entitled 'Maiden Mineral Resource at Angularli Deposit Alligator River Project' released on 20 March 2018 and available to download from asx.com.au ASX:VMY. The Company is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

About Vimy Resources

Vimy Resources Limited (ASX: VMY) is a Perth-based resource development company. Vimy's flagship project is the Mulga Rock Project, one of Australia's largest undeveloped uranium resources which is located 290km ENE of Kalgoorlie in the Great Victoria Desert of Western Australia.

Vimy also owns (75%) and operates the largest granted uranium exploration package in the world-class Alligator River uranium district, located in the Northern Territory. Vimy is exploring for large high-grade uranium unconformity deposits identical to those found in the Athabasca Basin in Canada.

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For a comprehensive view of information that has been lodged on the ASX online lodgement system and the Company website please visit asx.com.au and vimyresources.com.au respectively.

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THE MULGA ROCK PROJECT

RESOURCE OF



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The creation of approximately
350 direct site jobs
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Royalty and payroll tax
payments of around

A\$17m

PER YEAR TO THE
STATE GOVERNMENT

The amount of uranium produced
when used in nuclear power plants to
displace coal fired electricity would
offset more than



70 million tonnes
of carbon dioxide equivalent
emissions which is
around 13%

of Australia's total greenhouse
gas emissions.



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