

10. INDEPENDENT GEOLOGICAL REPORT

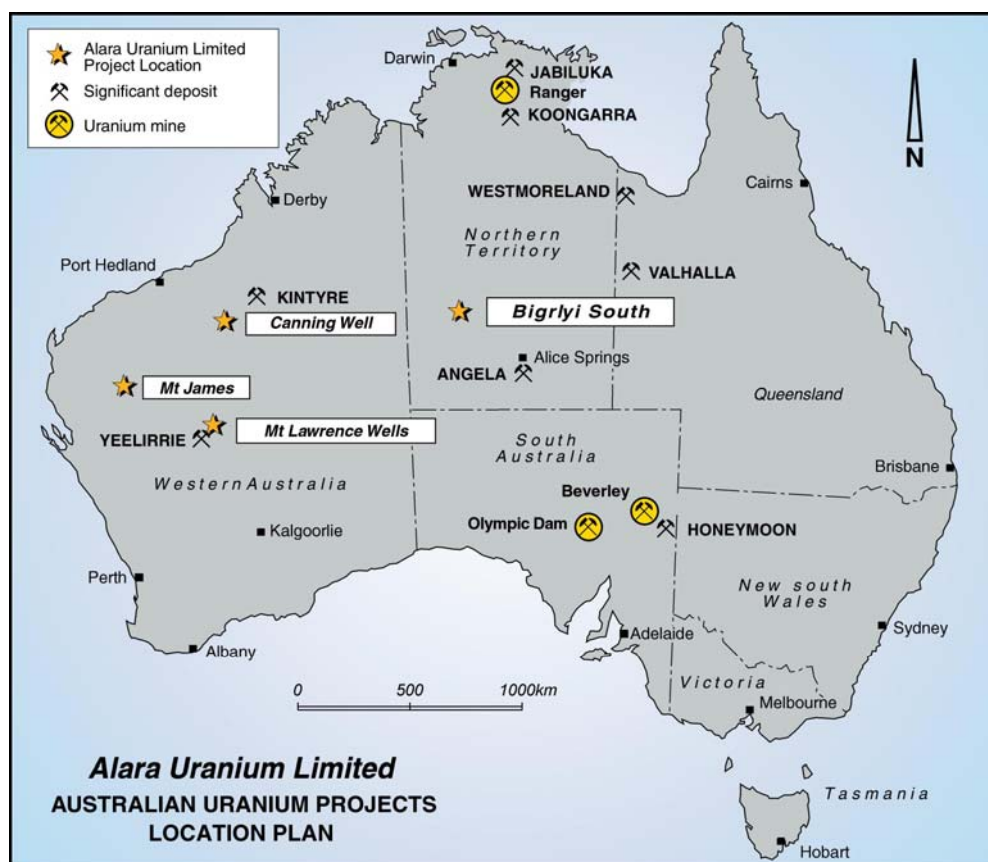


Figure 1 Australian Projects Location Map

1.0 BIGRLYI SOUTH URANIUM PROJECT

1.1 SUMMARY

- 5km south of Bigrlyi uranium deposit.
- 4 radioactive anomalies in the Mt Eclipse Sandstone, the host to the Bigrlyi deposit, within the tenements.
- A major low angle thrust fault, potential channel way for uranium bearing fluids and host to uranium deposits straddles across the entire length of EL24879.

1.2 INTRODUCTION

The Bigrlyi South Project, located approximately 390km to the NW of Alice Springs in the Northern Territory comprises five tenements consisting of four Exploration Licences (“EL”), numbered EL24879, 24928, 24929 and 24930; and one Exploration Licence Application (“ELA”) numbered ELA24927 (Table 1). The tenements cover an area of approximately 1664km² in the Ngalia Basin, which is an intracratonic basin that hosts several uranium occurrences and a prominent deposit at Bigrlyi. Alara is acquiring 100% of the mineral rights in the project area (Figs 1 & 2).

10. INDEPENDENT GEOLOGICAL REPORT

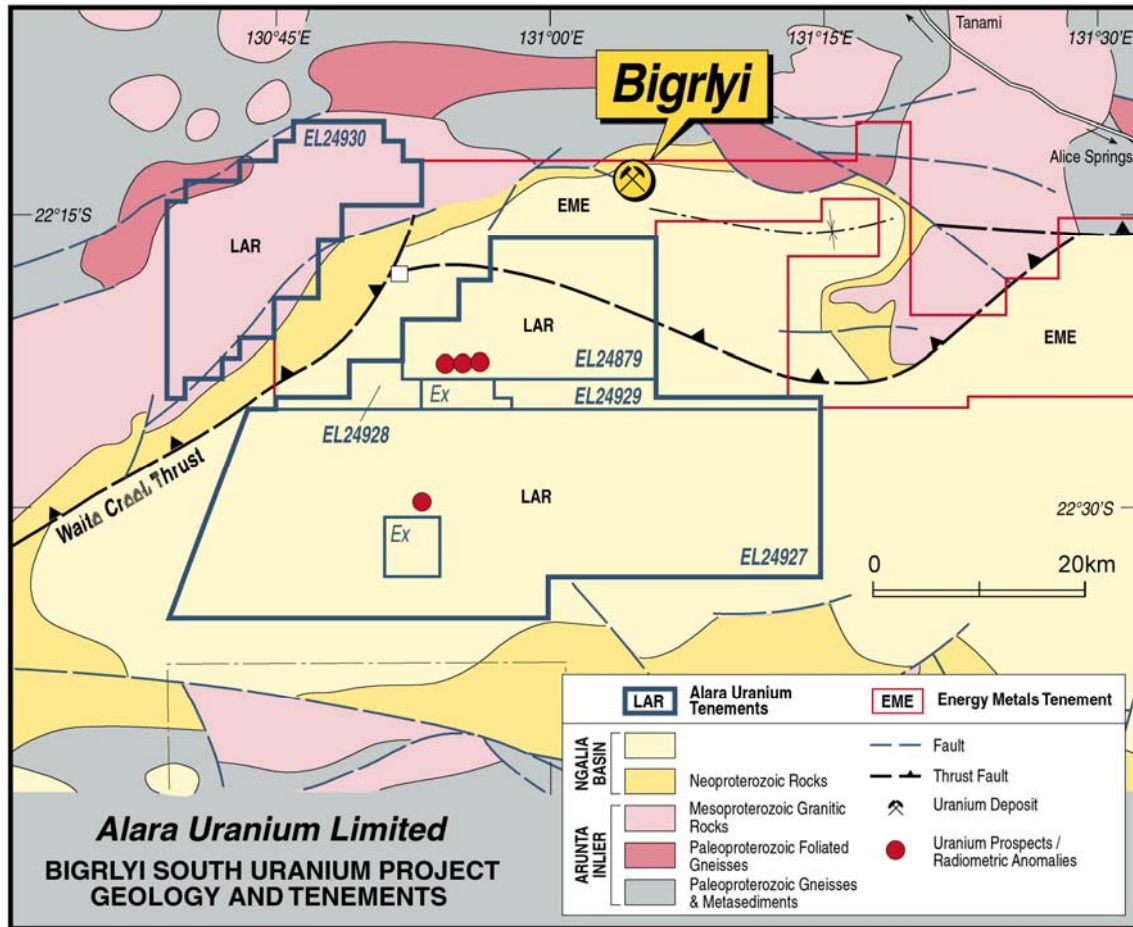


Figure 2 Bigrlyi South Tenement Location Map

Project	Tenement	Blocks	Area(~ km ²)	Location Name	State
Bigrlyi South Project	EL24879	82	260	Mount Doreen	NT
	ELA24927	338	999	Haasts Bluff	NT
	EL24928	15	35	Mount Doreen	NT
	EL24929	26	56	Mount Doreen	NT
	EL24930	99	314	Mount Doreen	NT

Table 1 Bigrlyi South Tenements

Of the five Bigrlyi South Project tenements, EL24879, 5km south of the Bigrlyi deposit is regarded as the most prospective for economic mineralisation of uranium. It covers the same stratigraphic unit as the host to the Bigrlyi deposit and is adjacent to and south of the Energy Metals Limited tenements that surround the Bigrlyi deposit. In addition, a major low angle thrust fault that is a potential channel way and host for the uranium bearing fluids straddles this tenement. It is known that the Bigrlyi deposit is folded and faulted and other uranium anomalies in the area are associated with thrust faults.

Three of the other Alara tenements are located nearby and also cover the same unit, the late Devonian to late Carboniferous Mt Eclipse Sandstone. EL24930 covers a pegmatitic granite unit in the basement rocks believed to be the source of the uranium bearing fluids.

10. INDEPENDENT GEOLOGICAL REPORT

1.3 REGIONAL GEOLOGY

The Ngalia Basin is a Neoproterozoic to Palaeozoic intracratonic basin approximately 300km long and 70km wide within the Northern Arunta Province of the Arunta Inlier, in central-south of the Northern Territory. The Ngalia Basin is an asymmetric syncline with a steep tectonised northern boundary and a shallow northerly dipping unconformity forming the southern basin boundary. The northern boundary is defined to the east by low angle thrust faults over the Arunta Inlier and to the west by high-angle reverse faults that have thrust the basement rocks several kilometres over the sediments.

The region has been tectonically active since before 1880Ma with several tectonic events and phases of granitic intrusions up to 1000Ma. Granites have provided the source material for subsequent sedimentation.

The younger post-tectonic granites, particularly the Southwark Granite Suite dated at 1567Ma are believed to be the origin of the uranium for the known uranium mineralisation in the region. Whole-rock chemical analysis of 18 samples from these late granites are recorded as having uranium contents varying from 1.5-22.5ppm, thorium ranged from 3-175ppm and vanadium typically from 3-57ppm. In contrast, 8 samples from the older granites ranged in uranium content from 1.5-10ppm and vanadium from 20-90 ppm. In general the geochemistry of these late granites is consistent with other high-heat production group (ie radiogenic) granites of the Arunta Inlier. Importantly EL24930 covers a large proportion of the Southwark Granite Suite west of the Bigrlyi deposit.

The Cambrian to Devonian sedimentary sequences of the Ngalia Basin range in age from 850-350Ma and rest unconformably over the Arunta Inlier. The sediments of the Neoproterozoic are dominantly fluvial to shallow marine quartz sandstones, shales, mudstones, conglomerates, dolomites and tillites. These sequences total between 2-3,000m in thickness.

The transition from the Neoproterozoic to the Cambrian occurs within the 700m thick Yuendumu Formation of sandstone and arkosic sandstone formed in shallow marine conditions. Three further sequences of shallow marine to fluvial sediments, each unconformable upon the underlying sediments, were deposited during the Cambrian, Ordovician and Devonian periods.

The youngest and thickest Palaeoproterozoic sedimentary sequence is the thick Devonian to Carboniferous Mount Eclipse Sandstone, up to 3,000m thick, that is deposited disconformably on all underlying Ngalia Basin units. In the region around the Bigrlyi uranium deposits the Mount Eclipse Sandstone overlies the Neoproterozoic age Vaughan Springs Quartzite, the oldest unit in the Ngalia Basin overlying the rocks of the Arunta Inlier.

Uplift and erosion of the Arunta Inlier rocks to the north of the Ngalia Basin between 350-370Ma initiated the deposition of the Mount Eclipse Sandstone. This deposition was terminated at the peak of the Alice Springs Orogeny, possibly about 300-320Ma. At this time the Yuendumu, Waite Creek, Patty Hill, Napperby and Hann Range thrust faults were active, thrusting the Arunta Inlier rocks southward over the Ngalia Basin rocks. This overthrusting is associated with the asymmetric folding of the Mount Eclipse Sandstone sequence with east to west axes and steep north-facing limbs. A major anticline to the west of the EL24879 suggests the continuation of the basal carbonaceous units of the Mount Eclipse Sandstone into the Alara project tenements south of the Bigrlyi deposit.

The Mount Eclipse Sandstone consists of arkoses, conglomeratic sandstones, greywacke and minor conglomerates deposited in piedmont to subaerial-fluvial environments. The sequence contains a significant carbonaceous component with plant fossils.

10. INDEPENDENT GEOLOGICAL REPORT

Uranium mineralisation of the Ngalia Basin is hosted in sedimentary channels, piedmont-style, of carbonaceous arkoses located towards the base of the Mount Eclipse Sandstone. The primary source of the uranium is inferred to be the younger granites of the Arunta Inlier.

Since the end of the Alice Springs Orogen, the Ngalia Basin has been part of the stable Australian Craton with terrestrial sedimentation of sands, silts, aeolian sand, calcrete, silcrete, lateritic ironstones and playa lake sediments. The unconsolidated sediments obscure parts of the prospective Mount Eclipse Sandstone within the Alara tenement block.

The Bigrlyi Uranium Deposit itself occurs in arkosic sandstones in the lower part of the late Devonian-late Carboniferous Mt Eclipse Sandstone which is host to 20 regional uranium prospects and radiometric anomalous zones.

The deposit is regarded as a typical “modified roll front deposit” where uranium bearing oxidising fluids met with reducing conditions in layers of predominantly carbonaceous matter in a permeable formation.

The regional geological setting indicates that uraniferous fluids probably originated from granites of the underlying Arunta complex, and migrated southwards. Here, reaction with the reductant lithologies led to the precipitation of uranium mineralisation in the rocks of the Mount Eclipse Sandstone.

The location of a uranium prospect at Currinya along the southern margin of the Ngalia Basin suggests that movement of uranium bearing fluids extended over considerable distances and was predominantly from the north to south.

1.4 GEOLOGY AND MINERALISATION

Shallow, south-dipping, small scattered outcrops of Mt Eclipse Sandstone cover approximately 5-10% of the Bigrlyi South Project area. The rest is covered by a thin cover of Recent to Quaternary sands, silts, calcrete, silcrete, lateritic ironstones and playa lake sediments.

A curvilinear low angle thrust known as the Yuendumu Thrust has been interpreted to straddle the entire length of EL24879 (Fig 2). It extends for a total of 100km either side of the tenement and joins up with another major northeast thrust fault west of EL24879. Another small thrust fault locally known as the Cusacks Bore Thrust has been mapped for about 5km and is located 3km to the north of the Yuendumu Thrust and 5km east of EL24879. Outside of Alara’s tenements two uranium prospects have been mapped and drilled on or around this thrust fault.

The projection of the axis of the major asymmetric regional anticline in the northern part of the Ngalia Basin passes through EL24879. The tenements, particularly EL24879, are located in an area that has undergone intense folding and faulting.

The shallow cover of Recent to Quaternary sediments obscures much of the geology and also inhibits any radiometric response from the area. The asymmetric folding and the extensive thrust faulting, plus faulting within the Bigrlyi deposit suggests that carbonaceous horizons within the Mount Eclipse Sandstone, considered favourable for hosting the uranium mineralisation, may have repetitions within the tenements. In addition faults would have provided excellent channel ways for the movement of uranium bearing oxidising fluids.

10. INDEPENDENT GEOLOGICAL REPORT

In spite of the shallow cover inhibiting radiometric response, a number of radiometric uranium anomalies are noted from the published radiometric data of the Northern Territory Geological Survey in the area.

1.5 DISCUSSION

The four tenements ELs 24879 and 24927-24929 that contain the lower Mt Eclipse Sandstone are regarded as prospective for economic roll front type uranium mineralisation similar to that at Bigrlyi for the following reasons.

- proximity to known mineralisation at Bigrlyi
- a pre-existing north to south flow regime,
- permeable strata interlayered with carbonaceous matter repeated in the tenement block due to folding and thrust faulting, and
- one or more low angle thrust faults postulated to straddle across the tenement, particularly EL24879 as additional primary fluid conduits into the Mt Eclipse Sandstone.

The fifth tenement EL24930 located in the pegmatitic granites high in background uranium is regarded as having potential for vein type uranium mineralisation.

1.6 PROPOSED EXPLORATION

All tenements, other than EL24927, in the Bigrlyi South Project are situated on the Mount Doreen Perpetual Pastoral Lease. EL24927 is situated to the south of these licences on Aboriginal Freehold land which is registered to the Yunkanjini Aboriginal Land Trust (“YALT”). Access to this tenement will be negotiated with YALT.

However, the most prospective tenements, EL24879 with the three known radiometric anomalies, and EL24928 and EL24929 covering the Mt Eclipse Sandstone, are located on the Mount Doreen Pastoral Lease.

Alara will focus its initial exploration effort on the known radiometric anomalies and the tenement in which these are located. This tenement, EL24879, is also the closest to the Bigrlyi deposit and is host to the Yuendumu Thrust fault. In addition the company will conduct new aerial and ground radiometric surveys designed to locate further anomalies in this and the other tenements.