FINAL SURRENDER REPORT FOR EL30689

LITTLE CONE

BIGRLYI JV PROJECT

17th July 2015 to 6th July 2018

EL30689_2018_S_01.pdf

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Commodities: Uranium, Vanadium

250K Map-sheet: Mount Doreen

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SUMMARY

EL30689 was converted from historical title application MLN1953 and was granted in July 2015. The tenement covered the historical 'Little Cone' uranium prospect within the Patmungala Syncline, and was originally explored by Central Pacific Minerals NL (CPM) in the mid-1970s. This is a final report covering exploration activities that occurred on EL30689 during Energy Metals' period of tenure.

Initial work included a review of geophysical datasets and compilation of historical mapping and drilling results. A project review in 2016 indicated that the eastern part of the tenement comprised outcrop of non-prospective Kerridy Sandstone and Djagamara Formation; subsequently three eastern blocks of EL30689 were relinquished (March 2017). In September 2017 Energy Metals conducted on-ground geological reconnaissance over the remaining area targeting weak aerial radiometric features associated with outcropping Mt Eclipse Sandstone. The radiometric features were found to be associated with slightly elevated gamma readings (up to 2x higher than background values) and therefore were deemed to be insignificant. The 'bleached' stratigraphic unit identified as prospective by CPM, and drill-tested in 1974 without success, was located and assessed to be too weathered to host significant mineralisation. In March 2018, following a further review, Energy Metals elected to surrender the remaining four blocks of the tenement due to downgraded prospectivity and EL30689 was surrendered in its entirety on 6th July 2018.

INTRODUCTION

EL30689 'Little Cone', which comprised seven graticular blocks, was granted on 17th July 2015 following its conversion from historical title MLN1953. EL30689 is part of the Bigrlyi Joint Venture Project (BJV) located within the Ngalia Basin. The BJV Project is a three party joint venture between Energy Metals Ltd (EME: 53.3%), NT Uranium Pty Ltd (NTU: 41.7%) and Southern Cross Exploration (SXX: 5%), with Energy Metals as the operator. EL30689 was located adjacent to ELs 24453 and 24807 (now EL31821), which are part of Energy Metals' 100% owned Ngalia Regional Project. EL30689 was grouped with EL30144 (Dingos Rest South) under GR375 for technical reporting purposes.

The project is located approximately 380 kilometres (by road) northwest of Alice Springs in the Naburula Hills area of Mount Doreen Station (Figures 1 & 2).

The Ngalia Basin has presently defined uranium resources of approx. 15,000 tonnes of U_3O_8. Modern and historical resources are known from seven uranium deposits (Bigrlyi, Walbiri, Minerva, Karins, Camel Flat, A15E, BigWest & Cappers) with numerous prospects showing good potential for additional resources (Figure 1).

Parts of EL30689, in particular, areas within the Naburula Hills, are believed to have Aboriginal heritage significance and ground disturbing works may be restricted, however, no detailed sacred site surveys were carried out during the period of Energy Metals' tenure.

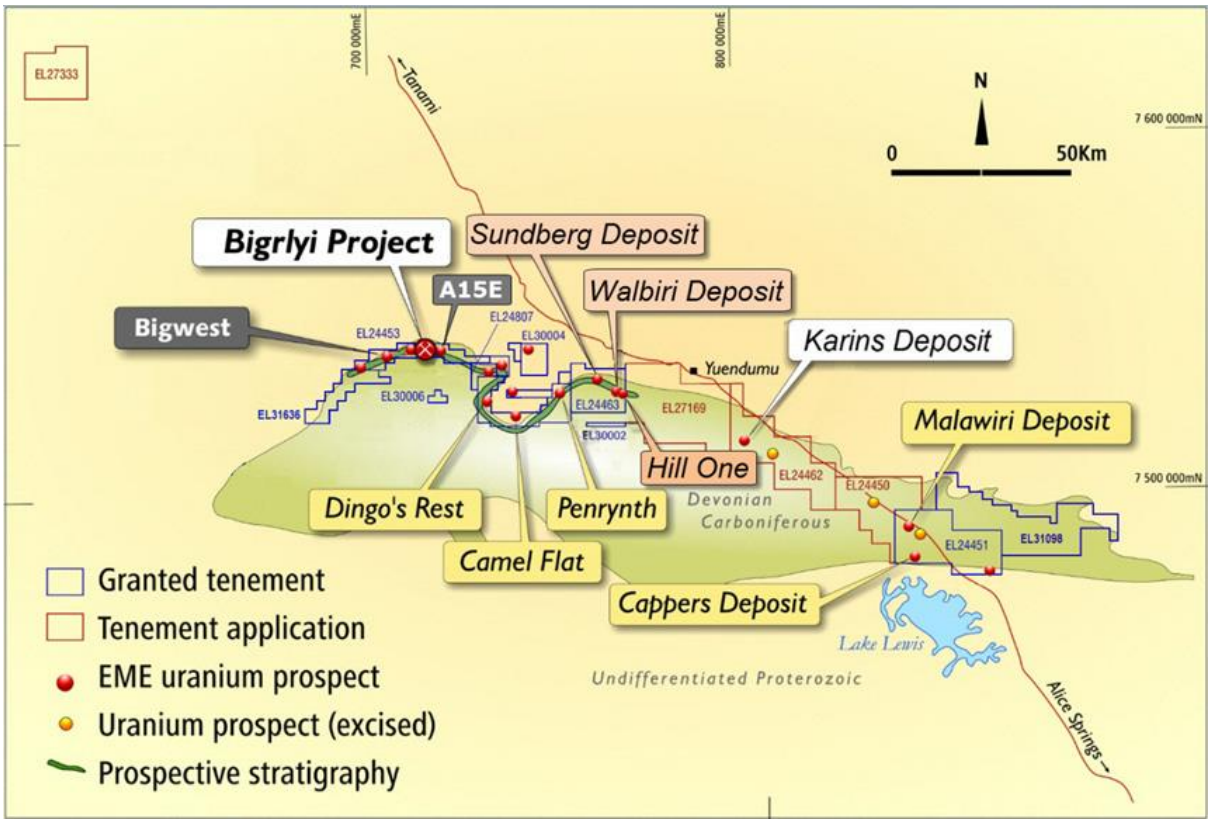


Figure 1: Bigrlyi & Ngalia regional project areas showing uranium deposits and prospects; the Ngalia Basin is shaded in green.

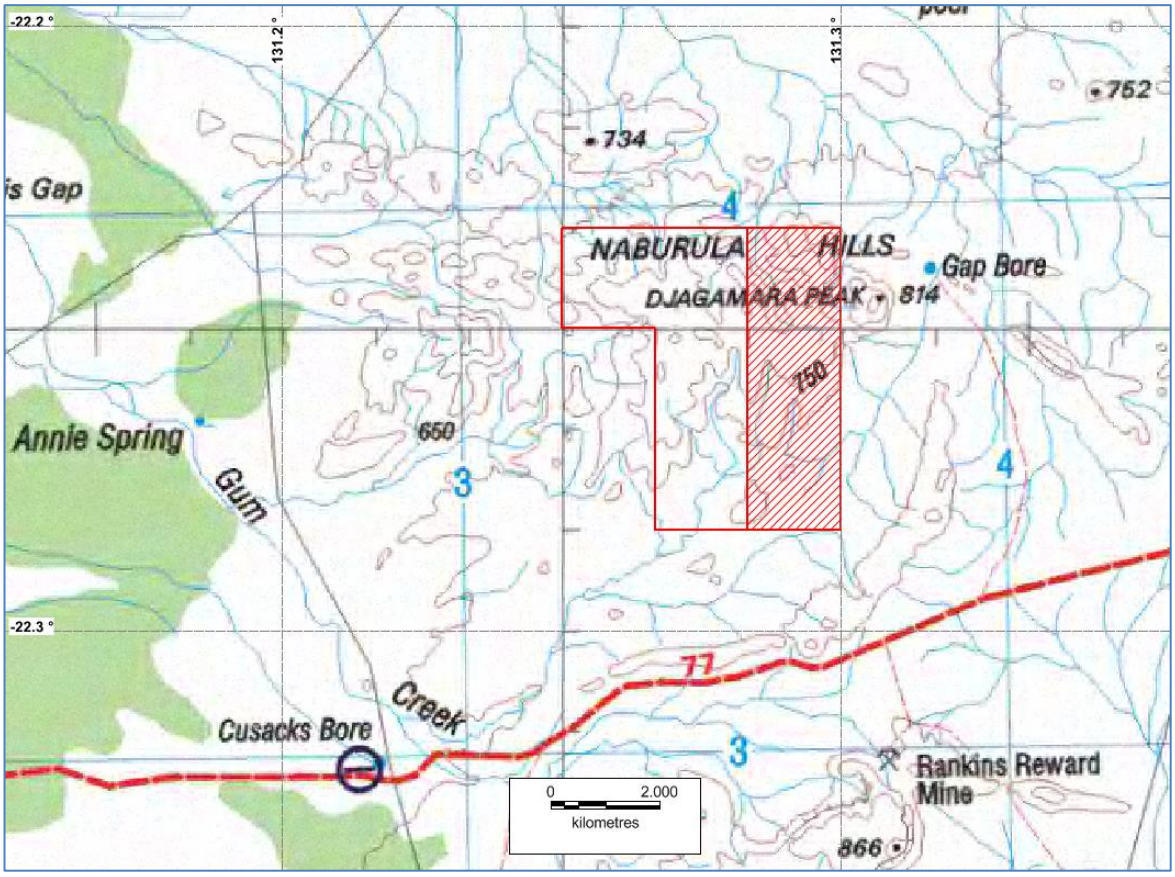


Figure 2: Topographic map showing the location of EL30689 in the Naburula Hills northeast of Cusacks Bore (Mt Doreen Station). Red hatched area shows the 2017 relinquished blocks.

REGIONAL GEOLOGY

The Ngalia Basin is an elongate, intracratonic depression filled by Proterozoic, Palaeozoic and Cenozoic sedimentary units, surrounded by a basement of Pre-Cambrian crystalline and metasedimentary rocks. The basin is approximately 300km long east-west and 70km wide north-south at its widest part. The basin underwent substantial north-south shortening and consequent internal deformation mainly during the latter part of the Alice Springs Orogeny (ca. 300 Ma) (Schmid et al., 2011). Both continental and marine sediments comprise the sedimentary stack which is estimated to be up to 6,000m thick. Unconformities and/or thrust faults commonly separate each of the rock units (Dixon, 1976).

The Neoproterozoic Vaughan Springs Quartzite (VSQ) is the oldest unit in the Ngalia Basin and mostly forms ridges along the northern and southern margins. The VSQ contains the Treuer Member, a less-resistant interbedded siltstone and sandstone. The Vaughan Springs Quartzite unconformably overlies the Arunta Inlier basement and is overlain conformably by carbonate units of the Albinia Formation, which in turn is overlain by the Naburula Formation, the Mount Stuart Formation and the Rinkabeena Shale. These are unconformably overlain by glacial deposits of the Mount Doreen Formation which in turn is overlain by the Yuendumu Sandstone, Walbiri Dolomite, Bloodwood Formation, Djagamara Formation and Kerridy Sandstone (Figure 3). Unconformably overlying these formations is the Carboniferous Mount Eclipse Sandstone (Young *et al,* 1995). The Mount Eclipse Sandstone crops out widely in the Ngalia Basin, has a maximum thickness of more than 3,000m, and hosts the known uranium-vanadium mineralisation.

The Mount Eclipse Sandstone is a medium to coarse-grained feldspathic sandstone, commonly with carbonate cement. Conglomerate, arkose, nodular carbonate and shale are present as lenses. The rocks are dominantly red (oxidised), although restricted zones of light to dark grey (reduced) sandstone are present and mottling is common. Tabular-style uranium-vanadium mineralisation is typically associated with reduced-oxidised (redox) interfaces. The Mt Eclipse Sandstone is unconformably overlain by Cenozoic units in the eastern part of the basin and outcrops mainly along the basin margins in the west where it may be steeply dipping or overturned. The main detrital source for the Mt Eclipse Sandstone is interpreted to be the Carrington Granitic Suite located to the north of the basin (Schmid et al., 2011).

LOCAL GEOLOGY

Little Cone prospect is located within the Naburula Hills regions of the Patmungala Syncline within a sequence of particularly thick Mt Eclipse Sandstone units (Figures 3, 4). The geology of the prospect comprises outcropping Mount Eclipse Sandstone of the basal sequence, which unconformably overlies the Devonian Kerridy Sandstone and the Ordovician Djagamara Formation; the latter typically crops out as silicified, resistant ridges; the Neoproterozoic glaciogene Mt Doreen Formation crops out to the east (Figure 4). The Vaughan Springs Quartzite is absent from this part of the Ngalia Basin.

Central Pacific Minerals Ltd (CPM) divided Mount Eclipse Sandstone in the prospect area into five stratigraphic units (Unit 1-5) and described the outcrops as moderately weathered with common limonitisation and bleaching; arkosic sandstones dominate and

are more susceptible to a deep weathering with K-feldspar converted to kaolinitic clay stained with limonite. A basal conglomerate unit crops out above the Kerridy Sandstone contact. Slightly anomalous radioactivity at the Little Cone prospect occurs at the top and bottom of the bleached sandstone (CPM's unit 'B_1') at a similar stratigraphic level to mineralisation found at the Dingo's Rest prospect to the south. Mineralisation is usually found in the finer-grained, thinly bedded units from 10 cm to 2 m thick. "Bleaching" does occur outside the 'B_1' unit but is less intense and not associated with anomalous radioactivity (Gardiner, 1974b).

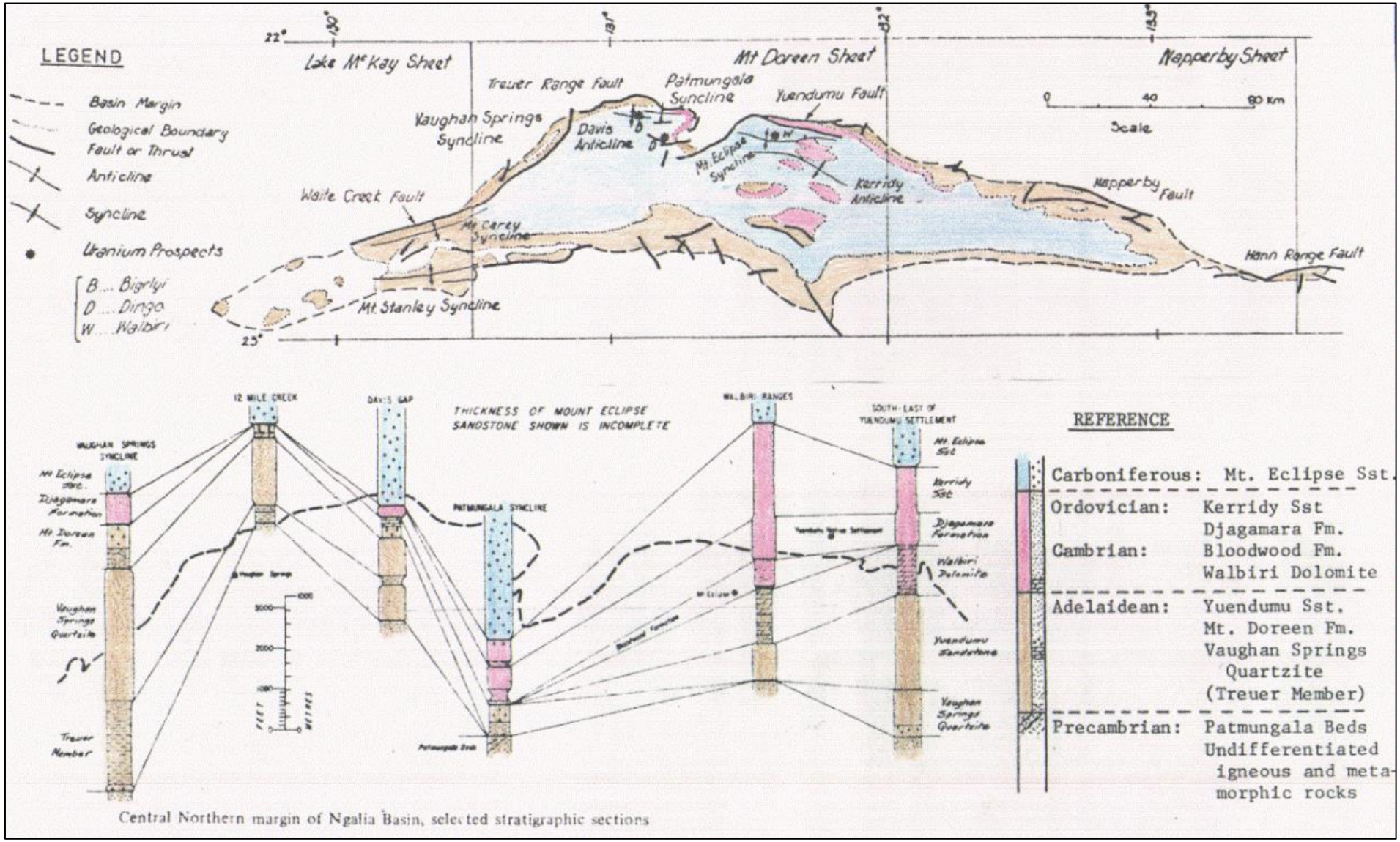
HISTORICAL EXPLORATION

The northern margin of the Ngalia Basin and the Arunta Inlier basement to the north, have been the focus of substantial regional exploration programs since the discovery of uranium mineralisation in the region in the early 1970s. Exploration for various commodities, including diamonds, gold, base metals as well as uranium, has been undertaken in both the Ngalia Basin sedimentary rocks and the adjacent Arunta Inlier granites and metasediments.

In the 1970s Central Pacific Minerals (CPM) conducted reconnaissance geological mapping and radiometric traversing east of Davis Gap and across the Patmungala Syncline on EL402 ("Djuburula West") and EL605 ("Yuendumu") in order to prospect the area between the Bigrlyi, Little Cone and Dingo's Rest prospects. Results of these surveys indicate that the favourable grey sandstone unit at Bigrlyi (Unit C) was found to be absent east of Davis Gap. In the Little Cone area where the basal Mount Eclipse Sandstone is well exposed, no radiometric anomalies indicative of mineralisation were found in these sequences of the Patmungala Syncline.

Central Pacific Minerals NL completed an airborne radiometric survey in April 1974 with a follow-up ground check of two anomalies in the Little Cone area taking place in May 1974 (Figure 4; Spark, 1975). A uranium prospective zone of weakly radioactive, bleached sandstone about 3 km long and 15 to 40 m thick was identified (Gardiner, 1974a). In September 1974, three holes (LCRH-1 to -3) were drilled to test the down-dip extension of the bleached zone. In all holes the major units could be correlated with surface geology, however, no fresh rock was encountered and no significant mineralisation was detected with maximum gamma probe measurements of 2-3 times background being recorded (Gardiner, 1974b). Petrographic descriptions of ten rock samples were undertaken.

During 1978 a geological map at 1:25,000 scale of the Patmungala Syncline including the Little Cone prospect area was completed by Afmeco who explored EL1662 in the late 1970s (Rippert et al., 1979; Figure 5). Afmeco subdivided the Mt Eclipse Sandstone into a number of sub-units with most mineralisation in the original mapping area, which included the Dingos Rest prospect to the south, occurring near the interface of units 2 and 3 (Figure 5).



Central Northern margin of Ngalia Basin, selected stratigraphic sections

Figure 3: Structure and solid geology with selected stratigraphic sections through the Ngalia Basin (from Rippert et al, 1979).

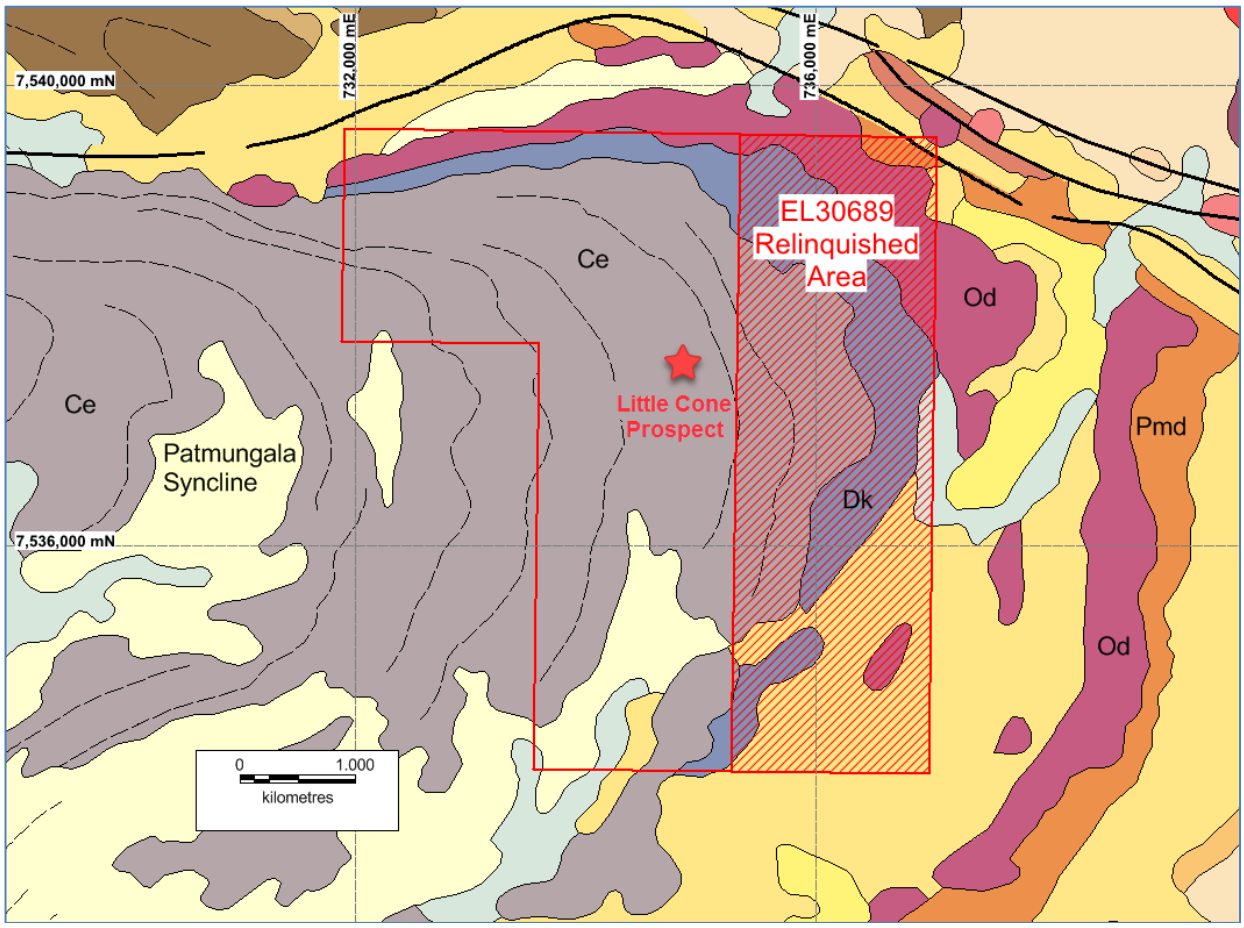


Figure 4: Geological Map of the Patmungala Syncline area (Mt Doreen 1:250K map-sheet) showing location of the Little Cone Prospect. EL30689 tenement outline in red; hatched area shows relinquished blocks in 2017. Ce = Mt Eclipse Sandstone; Dk = Kerridy Sandstone; Od = Djagamara Formation; Pmd = Mt Doreen Formation.

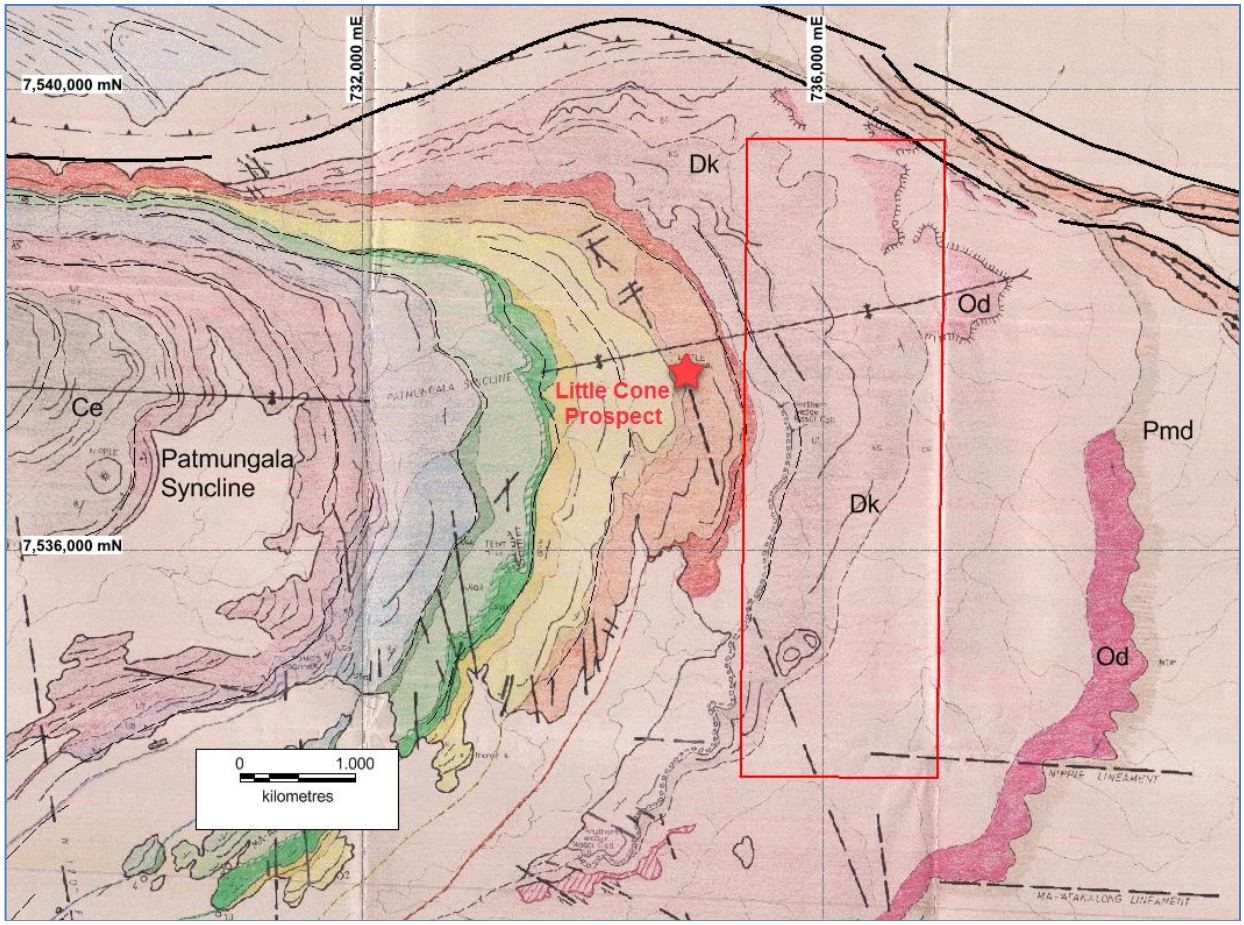


Figure 5: Geological Map of the Patmungala Syncline prepared by Afmeco in 1978 (Rippert et al., 1979); location of the Little Cone prospect shown. Afmeco subdivided the Mt Eclipse Sandstone into a number of sub-units with most mineralisation occurring near the interface of units 2 (orange colours) and 3 (yellow colours). A band of Mt Eclipse Sandstone basal conglomerate was mapped in the EL30689 surrender area. Ce = Mt Eclipse Sandstone; Dk = Kerridy Sandstone; Od = Djagamara Formation; Pmd = Mt Doreen Formation. Red polygon = relinquished area in 2017.

SUMMARY OF ENERGY METALS EXPLORATION ACTIVITIES (2015-2018)

Following grant of the tenement in 2015, activities during the first two years included compilation of historical reports, geological maps and aerial geophysical surveys. On-ground exploration activity was limited due to poor weather conditions and land access to the tenement. Project reviews were undertaken during 2015-2016 (Jordan, 2017) and in March 2017 three blocks of non-prospective ground to the east was relinquished (Jordan & Taylor, 2017). A reconnaissance trip to the 'Little Cone' area in 2017 downgraded the likelihood of there being any significant uranium mineralisation and in 2018 the tenement was surrendered in its entirety. Refer to the sections below for additional details on the works completed during Energy Metals' tenure.

Historical Data Compilation – Patmungala Syncline Mapping

Central Pacific Minerals undertook mapping programs in the Patmungala Syncline in the mid-1970s (CPM, 1976; Pope, 1977). CPM sub-divided and described various internal sub-units of the Mount Eclipse Sandstone. Seven sub-units of the upper Unit A of the Mount Eclipse Sandstone and two sub-units of Unit B were recognised as mappable units by CPM in the Patmungala Syncline (refer to the historical map legend in Figure 6).

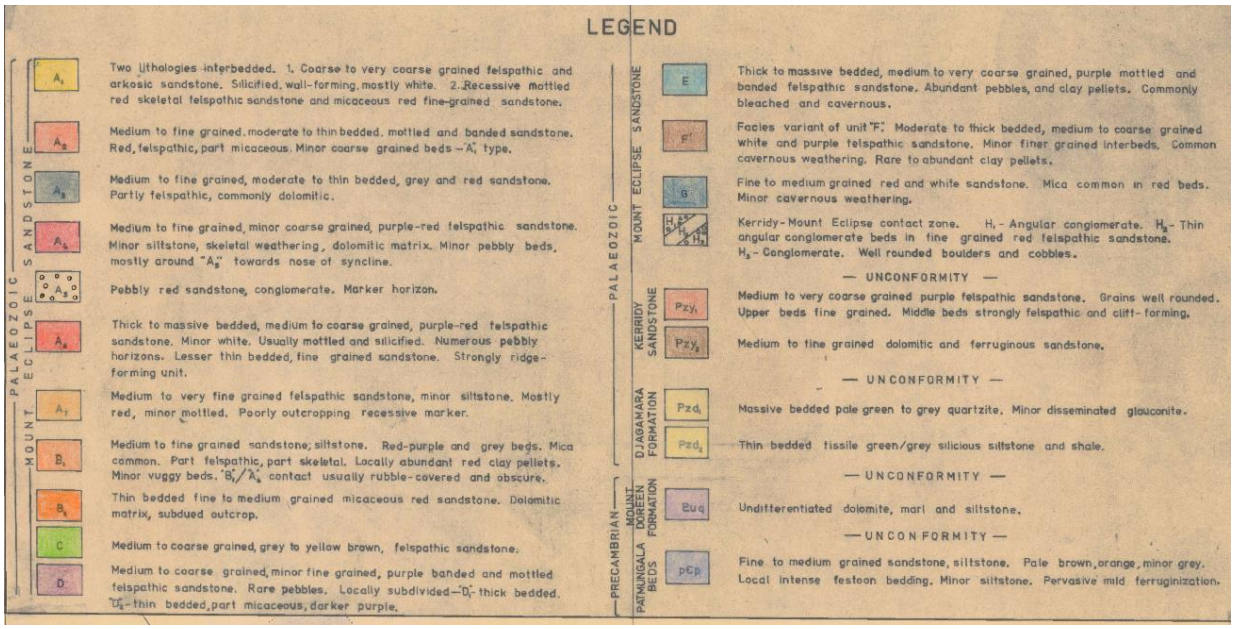


Figure 6: Map legend from CPM's Patmungala Syncline mapping project (CPM, 1976) with Mt Eclipse Sandstone sub-unit descriptions and other stratigraphic unit descriptions.

As part of Energy Metals' historical data compilation, several archived CPM geological maps, which include radiometric data from numerous scintillometer traverses, were digitally scanned and georeferenced. Maps most relevant to EL30689 (Map 4 of 5, Map 5 of 5 and Djuburula West Map shown in the Figure 7 plan) are provided with this report (refer Digital Data Appendix; EL30689_2018_S_03_ReconnaissanceGeology.zip).

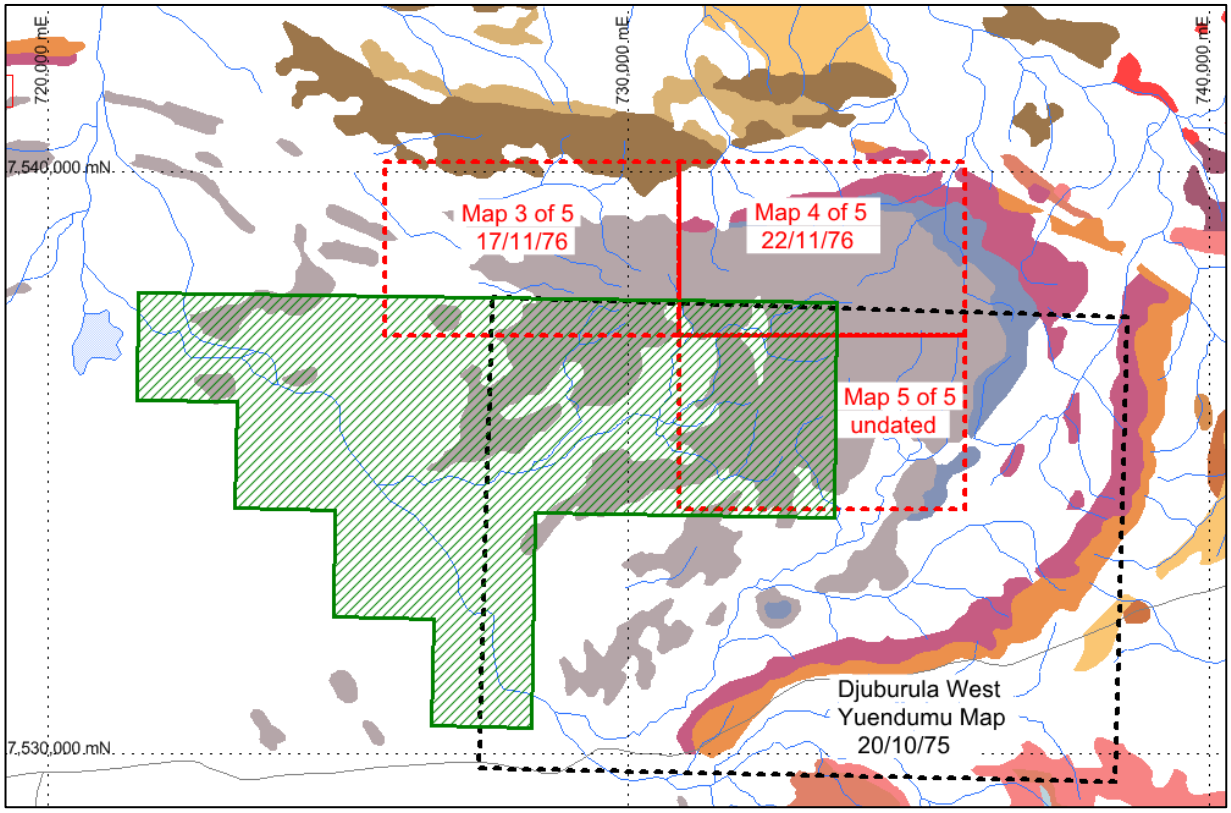


Figure 7: Plan from Jordan & Taylor (2018) showing historical CPM geological map-sheet boundaries near EL30689; background 1:250K Mt Doreen geology. Green striped area is ceased EL24807. The digitally scanned and georeferenced maps are provided with this report.

Historical Data Compilation – Little Cone Drilling Program 1974

During the compilation of historical data for the Little Cone prospect (located on CPM's former EL605) it became apparent that only a brief description of the drilling program results was ever made available by CPM (Spark, 1975). More detailed information including maps, plans, drill hole details, petrographic work, downhole lithological and gamma logs was provided in CPM internal report NT-106 (Gardiner, 1974b). Gardiner's 1974 report has been located in Energy Metals' archives and a scanned copy of the report (EL30689_2018_S_03_HistoricDrillingReport.pdf) plus the accompanying maps and plans (EL30689_2018_S_04_HistoricDrillingFigures.pdf) is provided in the digital data appendix.

Geophysics

Available historical geophysical data were reprocessed and stitched to create regional mosaic geophysical imagery covering EL30689 and surrounding areas. Since there is relatively good outcrop over EL30689, the radiometric imagery is of relevance to geological interpretations and radiometric anomaly targeting.

Figure 8 shows ternary radiometric K-Th-U RGB imagery over the surrender area. The different units within the Mt Eclipse Sandstone have somewhat different U-Th-K radiometric signatures. A potassic (red) signature is associated with the Kerridy Sandstone (presumably due to K-feldspar and/or potassic clays), and a mostly thorium-dominated (green) signature is associated with the Mt Eclipse Sandstone, which likely reflects ferruginous weathering (Th being scavenged by iron oxides). The Djagamara Formation (Od – Figure 8) has a weak radiometric signature presumably related to widespread silicification of this unit. No significant areas of U anomalism (blue colours), as seen for example some 4km to the west of EL30689 in the Patmungala Syncline fold axis, are evident within EL30689.

Figure 9 shows the uranium channel radiometric image; again, there are no significant anomalies located over the relinquished ground.

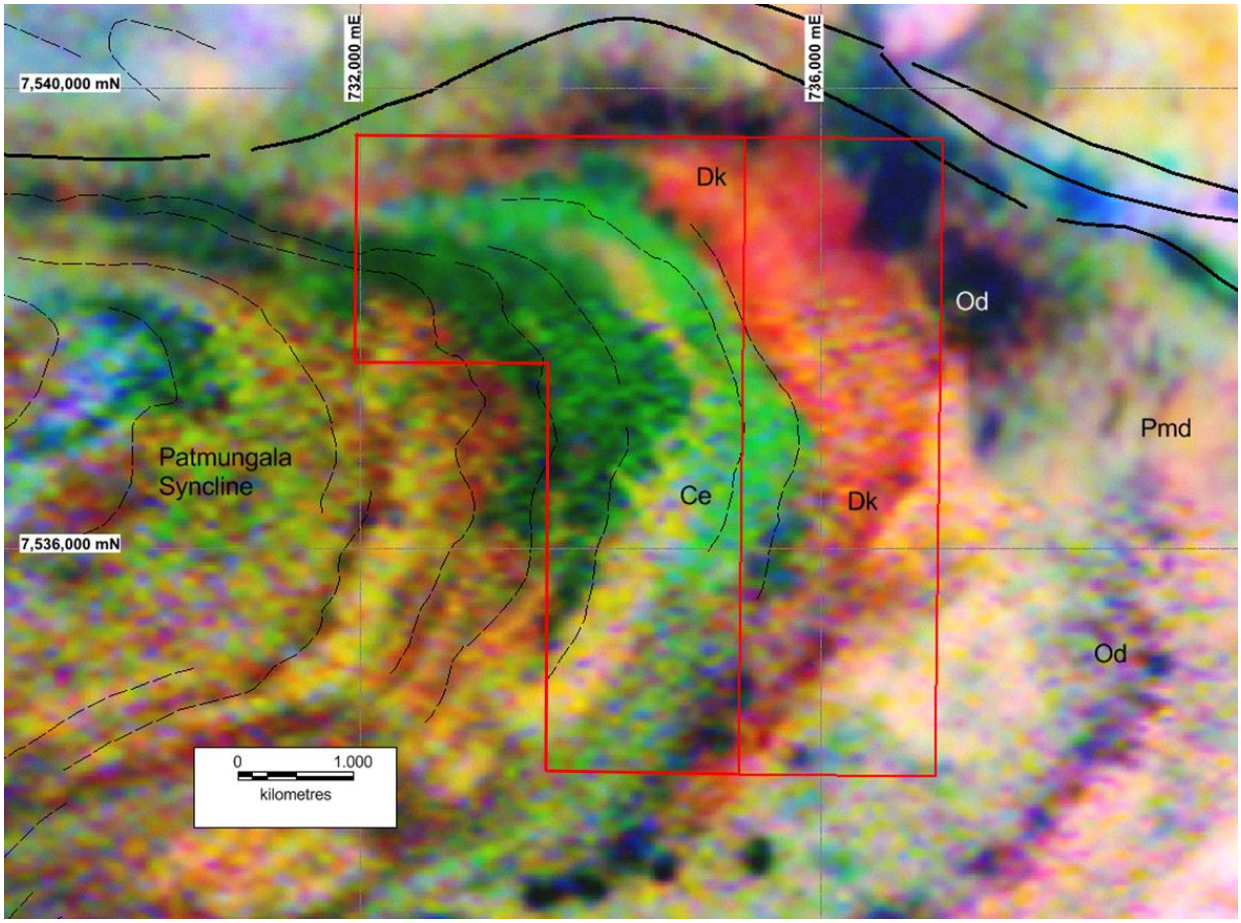


Figure 8: Ternary radiometric K-Th-U RGB imagery showing surrender areas (red polygons). The main features are the potassic (red) signature associated with the Kerridy Sandstone, and the mostly thorium dominated (green) signature associated with the Mt Eclipse Sandstone which likely reflects ferruginous weathering. Ce = Mt Eclipse Sandstone; Dk = Kerridy Sandstone; Od = Djagamara Formation; Pmd = Mt Doreen Formation.

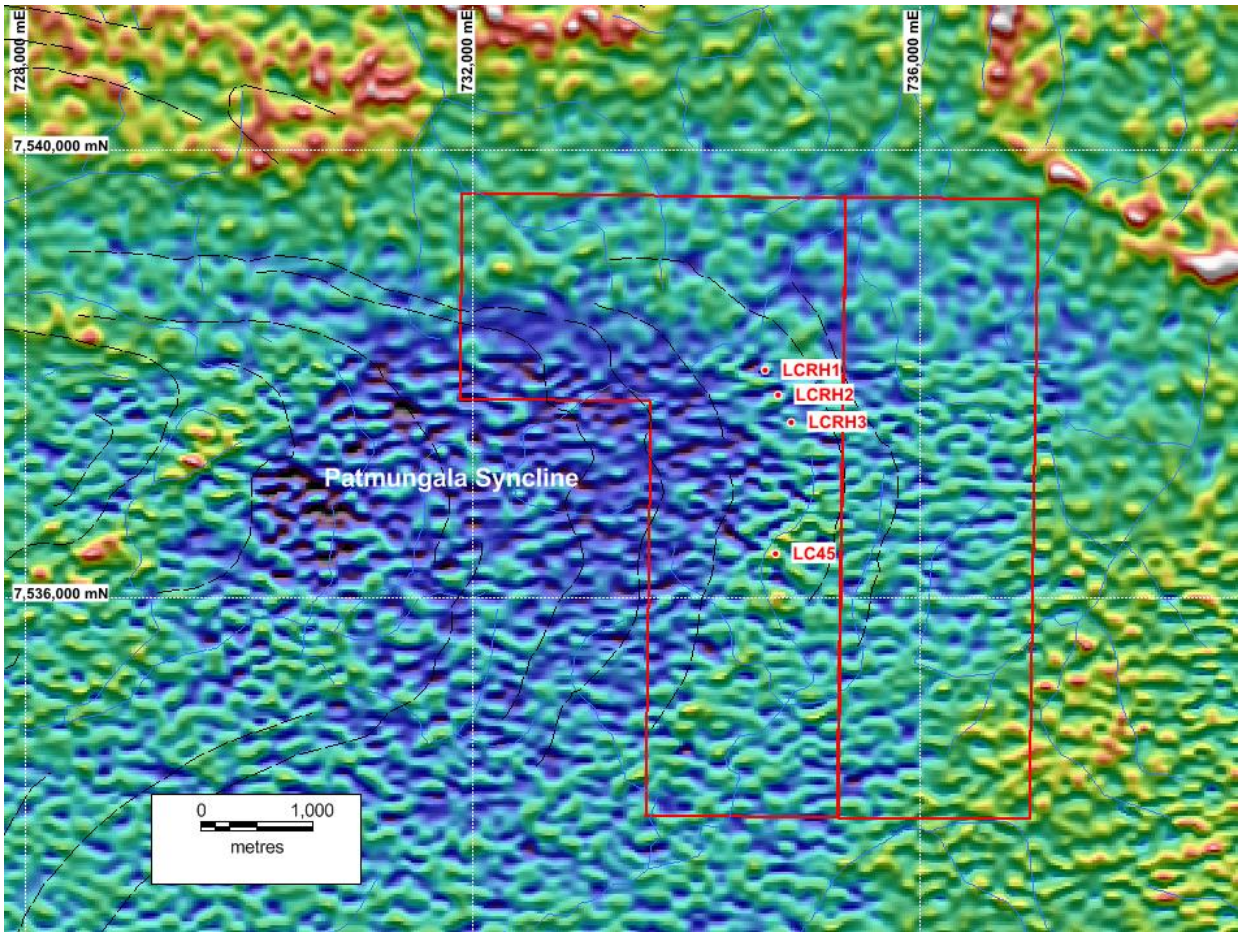


Figure 9: Uranium channel radiometric image showing the absence of significant anomalies over the relinquished ground and the locations of 1974 drill sites (LCRH1-3) and radiometric feature at LC45.

Partial Relinquishment 2017

During the period 2015-2016, the project area was reviewed to identify areas of low uranium prospectivity with a view to surrender of non-prospective ground (Jordan & Taylor, 2017). The eastern three blocks of EL30689 were judged to be non-prospective for uranium due to the dominant outcrop of Kerridy Sandstone and Djagamara Formation, and the poor radiometric response of these units. It was recommended that the eastern three blocks be relinquished (Figures 2, 4 & 10); the partial surrender was completed on 24th March 2017 (Jordan & Taylor, 2017). Exploration work on the surrendered ground during the tenure period was limited to review of geophysical datasets, in particular radiometric data, and compilation of historical mapping results as shown in previous sections.

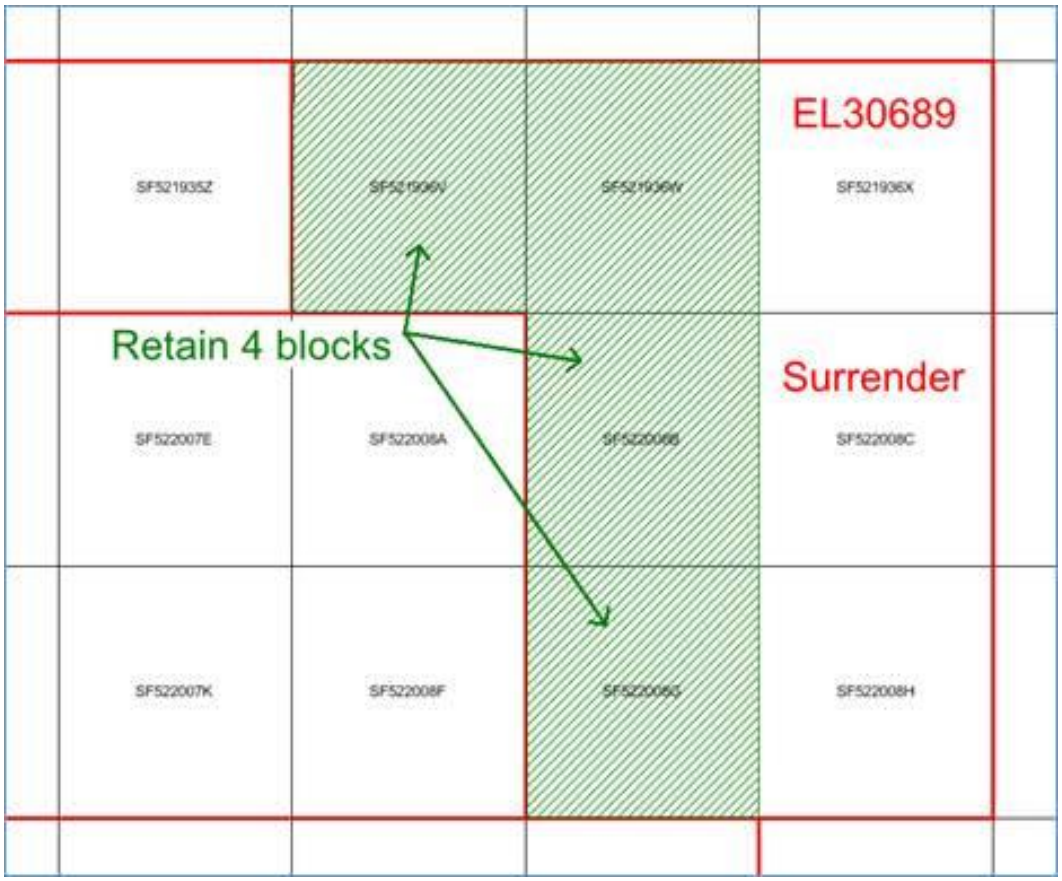


Figure 10: EL30689 tenement map showing blocks surrendered in 2017 (red outline) and those retained (green hatch).

Field Reconnaissance 2017

In September 2017 Energy Metals conducted a geological reconnaissance trip to EL30689 to evaluate the Mt Eclipse Sandstone in the vicinity of the 'Little Cone' prospect (Figure 11). The ground conditions were difficult and access tracks had overgrown since the 1970s. Access to the areas of interest was by foot.

Several, weak radiometric anomalies, including an anomaly at site LC45 (Table 1) associated with outcropping sandstone, were field checked, however, gamma readings were less than 2x background levels and appeared to coincide with topographic features more elevated than the surrounding outcrop. The rocks associated with the anomalies were typically a light red to brown, medium to coarse grained sub-arkosic oxidised sandstone containing common pebble bands (Figure 11). The radiometric features were judged to be of no significance.

Energy Metals staff also located the bleached stratigraphic package (unit B_1) identified by CPM, in outcrop, however, this unit was considered to be too oxidised & weathered to be prospective.

Sites of the three historical drill holes (LCRH-1 to -3) drilled in 1974 (Gardiner, 1974b), were visited. Star pickets marking drill-hole positions were located at two of the three sites, however, no collars were evident as the sites were rehabilitated in the 1970s. Residual drill cuttings present at site LCRH-3 showed no anomalous radioactivity. Table 1 provides hand-held GPS coordinates of the three drill sites and the location of radiometric feature LC45 (see also Figure 9).

Table 1: Location of visited sites on EL30689

Site ID	MGA_E	MGA_N	Notes
LCRH1	734622	7538050	labelled star picket located
LCRH2	734730	7537829	collar not located - approx. location only, +/- 20m
LCRH3	734856	7537580	drill chips not anomalously radioactive
LC45	734715	7536402	centre of radiometric feature, about 1.5x b.g. counts

Figure 11: Typical ferruginous, pebbly Mt Eclipse Sandstone outcrop near site LC45.

CONCLUSIONS

Since grant of EL30689 in 2015, Energy Metals has compiled and evaluated historical, prospecting reports, geological maps, drilling data and aerial geophysical surveys. On-ground exploration activity in the first two years was limited due to poor land access to the tenement. In the period 2015-2016, the project was reviewed and areas of low uranium prospectivity were identified which resulted in the three eastern blocks of

EL30689 being voluntarily relinquished in March 2017. After a reconnaissance field trip to the Little Cone area in 2017 Energy Metals downgraded the likelihood of there being significant and economic uranium mineralisation present and thence the four remaining blocks of EL30689 were surrendered on 6th July 2018.

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DIGITAL DATA APPENDIX

EL30689_2018_S_02_ReconnaissanceGeology.zip
EL30689_2018_S_03_HistoricDrillingReport.pdf
EL30689_2018_S_04_HistoricDrillingFigures.pdf
EL30689_2018_S_05_FileListing.txt