

Titleholder: Regalpoint Exploration Ltd
Operator: Regalpoint Exploration Ltd
Tenement Manager: McMahon Mining Titles Services
Tenement: EL 26315
Project Name: Hanson River
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EL 26323 (Hanson River)
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Target Commodity: Uranium
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Datum / Zone: GDA94 / Zone 53
250 000 K Mapsheet: Mount Peake SF 53-05, Barrow Creek SF 53-06
100 000 K Mapsheet: Anningie 5554, Barrow 5654
Graticular Blocks: 1674, 1675 (Five Minute); 1673, 1674, 1675 (One Minute)

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Executive Summary

Exploration licence 26315 (Hanson River) was granted on 31 March 2008 over an area of 139 km² (45 blocks). Regalpoint Exploration Ltd is the sole holder and operator of this licence. The licence area is located 16 km north of Ti-Tree and traversed by the Hanson River and Stuart Highway. Alice Springs is approximately 200 km to the south. Exploration licence 26315 is considered prospective for calcrete- and lignite-hosted uranium in abandoned drainage channels of the Hanson River and / or palaeochannels within the Cainozoic Ti-Tree Basin. Hanson River is conceptual, greenfields-type project, although previous work by CRA Exploration Pty Ltd in 1979 identified what was described as a large anomalous zone of uranium channel anomalies (MC 40, MC 42) in the southern portion of EL 26315. A sample taken from MC 40 yielded assay values of 10 ppm Pb, 150 ppm Zn, 850 ppm Cu, 130 ppm Ni, 50 ppm Co, 100 ppm Mn, 44 ppm U, and 18 ppm Th. Work undertaken during the reporting period included: (1) a review of previous exploration within and near EL 26315; (2) acquisition of ASTER imagery; (3) compilation of publically available geological, geochemical and geophysical data into a GIS; and (4) reconnaissance exploration. No evidence for uranium mineralising processes or palaeochannels was recorded. However, approximately 80% of the area of EL 26315 is covered by recent wind-blown and alluvial sediments of unknown thickness. Measurements taken with a hand-held RS-125 Super Spec spectrometer of exposed Precambrian units yielded concentrations of up to c. 12 to 15 ppm eU within Palaeoproterozoic basement rocks, demonstrating the uranium source potential of the local basement rocks. Future exploration activities will test for the presence of potential uranium pathways (e.g., palaeochannels) and favourable trap sites (e.g., calcrete, lignite), and follow-up zones of anomalous uranium identified by CRA Exploration Pty Ltd in 1979.

Keywords

Hanson River; Ti-Tree Basin; Palaeochannel; Calcrete; Lignite; Uranium

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Introduction

Tenure

Exploration licence 26315 (Hanson River) was granted on 31 March 2008 over an area of 139 km² (45 blocks). Regalpoint Exploration Ltd (“Regalpoint”) is the sole holder and operator of this licence. As illustrated in Figure 1, the licence area is located 16 km north of Ti-Tree and traversed by the Hanson River and Stuart Highway. Alice Springs is approximately 200 km to the south.

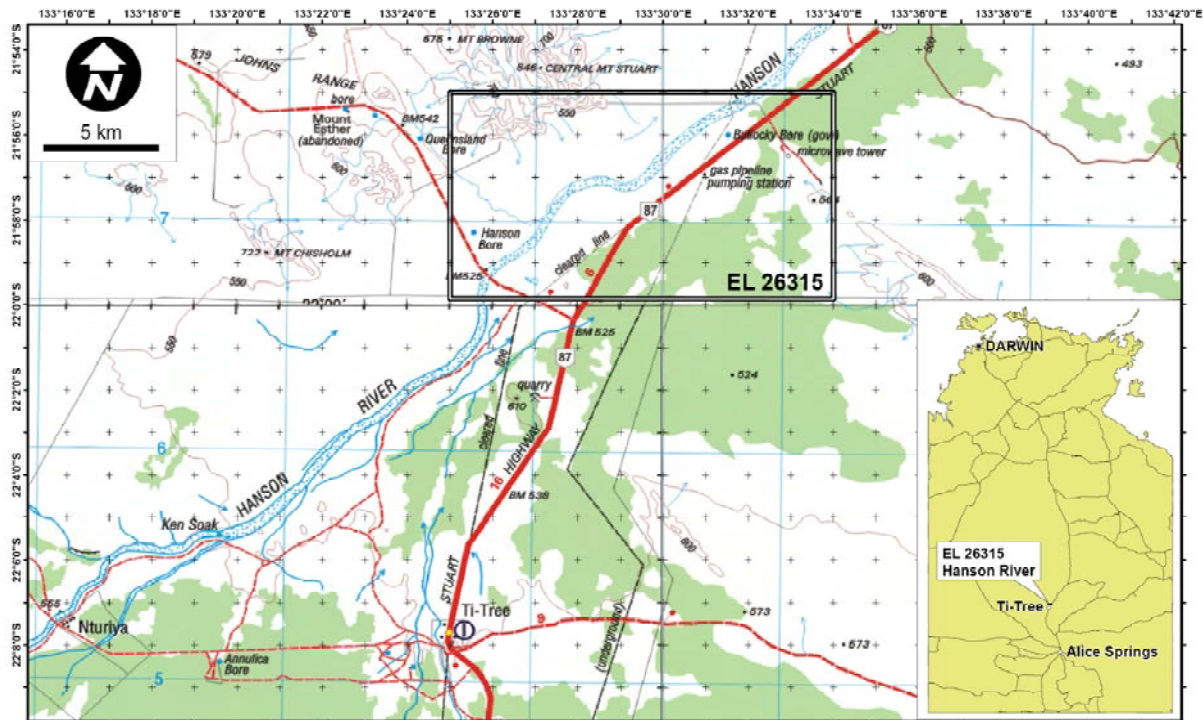


Figure 1. Location and boundaries of EL 26315 (Hanson River).

Brief geological description

Exploration licence 26315 is located in the Arunta geological region, “a multiply deformed and metamorphosed Precambrian to Palaeozoic basement terrane covering approximately 200,000 km² in central Australia. It forms the southern part of the North Australian Craton and differs from other Proterozoic provinces of northern Australia by the marked intensity and frequency of its deformation, the high grade of much of its metamorphism, and its abundance of granitic rocks. More than a dozen major orogenic and magmatic-thermal events have been recognised during the period 1865 to 300 million years, and metamorphism that has affected different parts of the region was dominantly of low pressure-high temperature type, similar to other Proterozoic provinces in Australia, such as the Halls Creek Orogen, East Kimberleys” (Hoatson et al., 2005).

Approximately 80% of the area of EL 26315 is covered by unconsolidated alluvial, colluvial and aerial sediments of the Cainozoic Ti-Tree Basin (e.g., Calf et al., 1991). Bedrock exposure is restricted to the northwestern and northeastern portions of EL 26315 where locally porphyritic, tourmaline-bearing biotite granite and minor mylonitic tonalite of the Palaeoproterozoic (i.e., Statherian) Esther Granite is overlain by Neoproterozoic, mainly sedimentary siliciclastic sequences of the Georgina Basin. The

latter comprises (1) glacial diamictite of the Cryogenian Boko Formation, and (2) siltstone, sandstone and dolostone of the Elkeria Formation, basal conglomerate and quartz arenite of the Central Mount Stuart Formation, and quartz sandstone, quartzite and mudstone the Grant Bluff Formation that form part of the Ediacaran Mopunga Group.

Exploration licence 26315 is an outcome of a comprehensive uranium prospectivity study of the Australian continent. This study was funded by Regalpoint and undertaken by a research team at the Centre for Exploration Targeting (University of Western Australia and Curtin University of Technology). Regalpoint selected the area because of its potential for calcrete- and lignite-hosted uranium within abandoned drainage channels of the Hanson River and / or palaeochannels of the Cainozoic Ti-Tree Basin. However, potential may also exist for intrusion-hosted uranium deposits in the Palaeoproterozoic Esther Granite and / or sediment-hosted uranium in siliciclastic sedimentary rocks of the Neoproterozoic Mopunga Group.

Nearby uranium deposits and occurrences

There are few known uranium deposits and occurrences near Regalpoint's Hanson River project.

The most significant hard rock uranium occurrence is Barrow Creek, approximately 50 km northeast of EL 26315. Mineralisation at Barrow Creek consists of torbernite and carnotite coatings on fracture planes within the Palaeoproterozoic Bean Tree Granite (Lally and Bajwah, 2006). Seven additional uranium occurrences, approximately 45 to 55 km southwest of EL 26315 and hosted by Palaeoproterozoic granite, gneiss and granulite, are probably of similar style.

The nearest calcrete-hosted uranium occurrence is within the Wilora palaeochannel on the adjacent EL 25366 that is held by Uramet Minerals Ltd ("Uramet"). In June and December 2007, Uramet reported that reconnaissance drilling at the Wilora palaeochannel calcrete uranium project identified a 15 km-long zone of elevated uranium in calcrete, ranging from 81 to 231 ppm U (www.uramet.com.au/documents/ASX20071022_1.pdf, www.uramet.com.au/documents/ASX-URM-393831.pdf; last accessed 27 February 2009).

Napperby (also known as New Well), the largest known calcrete-hosted uranium deposit in the Northern Territory, is located some 130 km southwest of EL 26315. Napperby has an inferred resource of 4.6 Mt @ 305 ppm U_3O_8 for 1,420 t U_3O_8 (equal to 3.13 million pounds U_3O_8) using a 200 ppm cut-off (www.asx.com.au/asxpdf/20090129/pdf/31frghfy67ndn7.pdf; last accessed 10 February 2009) and is contained in a "broad, weakly incised palaeodrainage system with up to 150 m relief. Quaternary fluvial and lacustrine sediments have been deposited within the drainage channels. The sediments are a complex mix of fluvial sands that comprise of coarse sands, sandy clays (\pm carbonaceous matter, \pm gypsiferous), clayey sands, lacustrine clays, and occasional massive gypsum. Calcretes, in places variously friable and porous or thick and massive, sometimes indurated and silicified, occur at more than one horizon within the channel sequence. Aeolian sand and calcrete overlie and cap the palaeodrainage fill. The drainage is saline near the confluence with Lake Lewis. The Napperby prospect comprises a historically defined 'mineralised zone' of near surface uranium mineralisation some 20 km in strike length occurring within a palaeochannel trending approximately east-northeast. Carnotite, the main ore mineral, resides primarily in the palaeochannel sands and sandy clays, as smears, disseminations, pellets and blobs up to 5 cm long. Calcrete also hosts carnotite as fracture coating and concretions. Underlying the mineralised sands at a depth of approximately 8 to 10 m is a lateritised, transported granitic clay saprolite or palaeosol,

characterised by very sticky dark red-brown clays containing very coarse angular quartz and feldspar. This rests on a very irregular palaeotopographic surface on radiogenic granite, with 10 to 100 m of relief on a kilometre-scale ([www.toroenergy.com.au/ webapp 9022/ Napperby](http://www.toroenergy.com.au/webapp/9022/Napperby); last accessed 10 February 2009).

Exploration Completed During the Report Period

The principal exploration activities during the report period were:

- Review of previous exploration within and near EL 26315.
- Acquisition of ASTER imagery.
- Compilation of publically available geological, geochemical and geophysical data into a GIS.
- Reconnaissance exploration.

Review of previous exploration within and near EL 26315

1970 to 1971: Utah Development Company Ltd ("UDC")

- Target commodities: uranium and (stratiform) base metals
- Geological target: Central Mount Stuart Formation
- Location of exploration activities with respect to EL 26315: UDC's Prospecting Authority 2430 was located approximately 40 km northeast of the area that is covered by Regalpoint's EL 26315.
- Exploration activities: regional geological-scale geological mapping of the Central Mount Stuart Formation, geochemical orientation survey and assaying (elements of interest: Co, Cu, Ni, Pb and Zn), and airborne radiometric survey
- Relevant results: the airborne radiometric survey failed to detect any zones of anomalous uranium other than very localised uranium enrichment coincident with granite outcrops

1978 to 1982: CRA Exploration Pty Ltd ("CRA")

- Target commodity: uranium
- Location of exploration activities with respect to EL 26315: CRA's EL 1881 enclosed the entire area of Regalpoint's EL 26315.
- Exploration activities: detailed airborne differential gamma-ray spectrometer and magnetometer survey, helicopter-assisted ground follow-up of uranium anomalies and assaying (elements of interest: Pb, Zn, Cu, Ni, Co, Mn, U, Th), helicopter-assisted geochemical drainage survey and assaying (elements of interest: Pb, Zn, Cu, Co, Cr, As, Au, U, Sn, W), loam sampling of circular depressions, ground magnetometer survey over an airborne magnetic anomaly and subsequent drilling of the anomaly
- Relevant results: (a) the helicopter-assisted geochemical drainage survey produced no significant anomalies; (b) according to CRA, the helicopter-assisted ground follow-up of uranium anomalies produced no significant anomalies. Most anomalies were very localised and coincided with outcrops of Palaeoproterozoic granite. The elevated gamma-ray response was thought to be linked to uranium in zircon and epidote within the granitic rocks. Despite this statement, CRA reported some more encouraging assay values of up to 550 ppm U. CRA also reported anomalies that are located on or close to Regalpoint's EL

26315 (i.e., MC 37, MC 40, MC 41, MC 44, MC 46, and MC 48). Anomaly MC 40 within the southern portion of Regalpoint's EL 26315 was classified as large anomalous zone and a sample from this locality produced assays values of 10 ppm Pb, 150 ppm Zn, 850 ppm Cu, 130 ppm Ni, 50 ppm Co, 100 ppm Mn, 44 ppm U, and 18 ppm Th; (c) CRA detected evidence for radiometric disequilibrium in the sampled lithologies, for example at Anomaly MC 120 (assay value = 550 ppm U, spectrometer reading = 91 ppm eU); (d) loam sampling of circular depressions that were interpreted as dolines related to calcrete development on the Hanson River did not yield any significant anomalies; and (e) a 36.5 m deep drill hole over a strong, coincident ground and airborne magnetic anomaly terminated in massive garnet-magnetite skarn in the contact aureole of a Palaeoproterozoic granite. No anomalous geochemistry was reported.

1989: Stockdale Prospecting Ltd ("Stockdale")

- Target commodity: diamonds (i.e., diamondiferous kimberlite pipes)
- Location of exploration activities with respect to EL 26315: Stockdale's EL 5985 partly overlapped the area covered by Regalpoint's EL 26315.
- Exploration activity: large stream, barrage, spot loam and semi-continuous loam sampling programme over an area of 7,900 km² targeting.
- Relevant results: No kimberlitic indicators were recovered.

1991 to 1998: Western Mining Corporation Ltd / WMC Resources Ltd ("WMC")

- Joint venture partner: Aberfoyle Resources Ltd ("Aberfoyle") (1997 to 1998)
- Target commodities: gold (i.e., stratabound and vein-hosted gold deposits) and diamonds (i.e., diamondiferous kimberlite pipes)
- Principal geological target: Palaeoproterozoic Lander Rock Formation
- Location of exploration activities with respect to EL 26315: WMC's EL 7558 partly overlapped the area covered by Regalpoint's EL 26315.
- Exploration activities by WMC: re-processing of BMR and NTDME aeromagnetic data, aerial photo regolith interpretation, semi-regional gravity survey, airborne magnetic surveys, ground magnetic, gravity and IP surveys, RC drilling (mainly geochemical and stratigraphic), reconnaissance lag sampling and assaying (elements of interest: Au, As, Ba, Bi, Co, Cr, Cu, Fe, Mn, Mo, Ni, Ag, Pb, Sb and Zn)
- Exploration activities by Aberfoyle: rock chip sampling, soil sampling, vacuum drilling
- Relevant results: (a) no significant anomalism was detected within the licence areas, which were deemed to have low potential for the discovery of mineralisation in economic concentrations; (b) thickness of overburden ranges between 5 and 75 m; (c) identification of a cluster of Cu-Bi ± Au anomalous ironstones (Cu up to 1,450 ppm, Bi up to 1,585 ppm, and Au up to 0.89 ppm) at the Mount Esther prospect that are coincident with gravity anomalies

ASTER imagery

ASTER data covering EL 26315 were ordered from and processed by Geoimage Pty Ltd in October 2008. Figure 2 illustrates an ECW enhancement of the ASTER VNIR Bands 3, 2, 1 with a resolution of 15 m. Interpretation of the remote sensing imagery is ongoing.

Reconnaissance exploration

Reconnaissance exploration was undertaken at EL 26315 on 29 May 2008. The principal aim of this field visit was to assess the licence area with respect to (1) evidence for uranium mineralising processes having occurred, (2) evidence for palaeochannels, and (3) extent of recent sediment cover.

No evidence for uranium mineralising processes or palaeochannels was recorded during this reconnaissance of EL 26315, which is largely covered by recent wind-blown and alluvial sediments. However, measurements with a RS-125 Super-Spec spectrometer of Palaeoproterozoic granites and mylonites yielded values between 3.10 and 15.25 ppm eU, confirming the potential of the Palaeoproterozoic basement rocks as a viable uranium sources. Assay results are listed in Table 1.



Figure 2. ECW enhancement of the ASTER VNIR Bands 3, 2, 1 (all 15 m resolution data), also illustrating the main area of interest for future field investigations.

Table 1. Assay results (RS-125 Super Spec spectrometer)

NORTHING	EASTING	LITHOLOGY	TC [cpm]	K [ppm]	U [ppm]	Th [ppm]
S 21° 55.895'	E 133° 25.358'	Red quartz-arenite, Central Mt Stuart Fm	992.20	0.91	1.99	7.84
S 21° 55.897'	E 133° 25.399'	Porphyritic granite, Esther Granite	2,625.10	3.34	3.10	14.95
S 21° 55.944'	E 133° 25.460'	Porphyritic granite, Esther Granite	4,107.70	3.95	11.84	15.29
S 21° 55.936'	E 133° 25.468'	Mylonitic rock, Esther Granite (?) or Lander Rock Fm (?)	4,765.30	4.39	15.25	22.35
S 21° 55.895'	E 133° 25.358'	Gray sandstone, Elchera Fm (?)	1,032.90	0.78	0.58	10.95

Key to abbreviations: Fm = formation; Mt = mount; TC = total count.

Summary and Recommendations

Hanson River (EL 26315) is a conceptual, greenfields-type project. Reconnaissance exploration indicated that Palaeoproterozoic basement rocks within the licence area contain elevated levels of uranium (c. 12 to 15 ppm eU), demonstrating the uranium source potential of the Palaeoproterozoic basement. The elevated uranium concentrations agree well with the significant levels of uranium (generally 9 to 100 ppm U) in granitoids and arkoses in the ranges to the west, south and east of Uramet's Wilora palaeochannel calcrete uranium project (www.uramet.com.au/documents/urametprospectus_lores.pdf; last accessed 27 February 2009), approximately 25 km east of Regalpoint's EL 26315. Given the widespread occurrence and exposure of Palaeoproterozoic basement rocks within a 50 km radius from EL 26315, it is possible that sufficient uranium was available for leaching by oxidised fluids and formation of economic uranium deposits within palaeochannels, permeable strata, or faults.

It is recommended that further exploration activities at Hanson River test for the presence of potential uranium pathways (e.g., palaeochannels) and favourable trap sites (e.g., calcrete, lignite) within sedimentary successions of the Cainozoic Ti-Tree Basin. It is also recommended that a large anomalous zone of uranium channel anomalies (MC 40, MC 42) that were identified in 1979 by CRA Exploration Pty Ltd are followed up. A sample taken from MC 40 yielded assay values of 10 ppm Pb, 150 ppm Zn, 850 ppm Cu, 130 ppm Ni, 50 ppm Co, 100 ppm Mn, 44 ppm U, and 18 ppm Th.

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