FINAL REDUCTION REPORT
EL 25176

FOR PERIOD ENDING 8th November 2010
‘HERMIT CREEK’
LITCHFIELD PROJECT NT

CAPE SCOTT SD5207  1:250,000
PINE CREEK SD5208  1:250,000
PORT KEATS SD5211  1:250,000
FERGUSSON RIVER   1:250,000
Anson 4971        1:100,000
Greenwood 4970    1:100,000
Daly River 5070   1:100,000
Moyle 4969        1:100,000
Wingate Mountains 5069 1:100,000

Titleholder: Territory Uranium Company Limited

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Territory Uranium Ltd
By A Chapman
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1. SUMMARY

EL 25176 is situated approximately 240km SSE of Darwin, NT, and 14km west of Daly River townsite. Territory Uranium Company Pty Ltd is exploring for multiple commodities and applied for EL25176 to explore for unconformity-hosted U mineralisation, plus review potential for base metals and gold. At the end of year 4 the entire tenement was relinquished. This report details the work done on the tenement years 1 to 4.

Work during the first 2 years of tenure consisted of a review of both NTGS data, plus a geophysical review of available data. During Year 3, reconnaissance, ground geophysical and geochemical sampling of radiometric anomalies (uranium focused) was undertaken at eight sites across EL24984, EL25195 and EL25176. 3 rock chip samples and 5 of the spectrometer assays were located within the relinquished ground on EL25176. No significant results were returned. Territory Uranium intended to complete a radiometric survey over this tenement in year 4 but due to budgeting restraints was unable to complete the survey. The tenement was subsequently relinquished due to Territory Uranium being unlikely to meet expenditure commitments in year 5 and 6.

2. LOCATION AND ACCESS

EL 25176 is situated approximately 240km SSE of Darwin, NT, and 14km west of Daly River (Figure 1). Access to the Licence is possible from Dorat Rd (old Stuart Highway, out of Adelaide River) then via the Daly River Road, then west and southwest along various tracks that truncate the Licence. Access is limited outside of the dry season.

Most of the Licence is low-lying with little relief, but 5 of the easternmost blocks have a NNE-trending series of ridges (parallel to Chilling Creek).
Figure 1  EL25176 Location & Reduction Map
3. TENEMENT STATUS AND OWNERSHIP

EL 25176 was granted on 9th November 2006. It originally comprised of 362 graticular blocks (1080 sq km). At the end of year three 134 blocks were retained and at the end of year 4 all blocks were relinquished. There were no other mining leases or mineral claims shown within the Licence boundaries.

Underlying cadastre was mainly perpetual pastoral lease; the majority of the Licence was covered by Elizabeth Downs Station (owned by Branir Pty Ltd). A small portion north of the Daly River on the northern boundary of EL25176 was Litchfield Station (also Branir Pty Ltd). An interest was also registered within the Licence by the Australian Telecommunications Commission.

This report details exploration carried out by TUC on the tenement for the duration that it was held.
4. GEOLOGY

EL 25176 is situated within on the western side of the Pine Creek Orogen, in the area known as Litchfield Province. The regional geology is outlined in several texts, most notably including Ahmad et al., 1993; Ahmad, 1998; Berkman, 1980; Mendum 1972, Fahey et al., 1986, Pietsch 1989 and Carson et. al., 2006. The Giants Reef Fault transects the eastern edge of EL 25195, which is interpreted as the boundary between the 'central' Pine Creek Orogen to the east and the Litchfield Province to the west (Berkman 1980).

The Litchfield Province was defined as the western part of the Pine Creek Geosyncline, with large parts of the Litchfield Province interpreted as 'granitoid, garnetiferous, gneissic, with metasediments varying in metamorphic grade from greenschist to upper amphibolite / granulite grade (Berkman 1980). The lack of outcrop in much of the area has limited exploration on the western portions. Recent work by the NTGS has reviewed the Litchfield Province, with geochronology tentatively correlating the Litchfield Province with the Halls Creek Orogen to the southwest, but notes that the field evidence indicates a complex tectonic relationship (Carson et al., 2006; Glass, 2007).

The mapped lithology within EL25195 is largely obscured by Cainozoic eluvial soils. Floodplain alluvium masks the geology of the northern blocks (Figure 2). The central portion has small outcrops of granites from the Allia Suite (Litchfield Granite, Fish River Billabong Adamellite) which is an S-type granite (Wyborn 2002). Further south, metabasite rocks of the Hermit Creek Metamorphics are mapped in areas adjacent to Murra-Kumangge Granodiorite. The eastern 5 blocks that are truncated by the Giants Reef Fault are mapped as Proterozoic Chilling Sandstone overlying Proterozoic Burrell Creek Formation sediments. Much of the tenement is underlain by the Allia Suite Granites (Litchfield and Murra-Kumangge Granodiorite) with areas of Hermit Creek Metamorphics sandwiched between the granites.
Figure 2 Geology Map for the Litchfield Project, 1:250K NTGS.
5. PREVIOUS EXPLORATION

Previous exploration over EL25176 is detailed in Appendix 1.

Tipperary Land Corporation was prospecting AP 1873 primarily for bauxite, with the possibility of phosphate in the SE corner (which is within EL 25176). Most of AP 1873 is outside of EL 25176 and no work was carried out within EL 25176.

Several companies carried out exploration for uranium in the 1970s. Suttons Motors in JV with Mobil Australia Ltd explored EL 1599 (plus several other contiguous tenements in the Litchfield area) for uranium from 1978. An airborne radiometric survey identified several U anomalies, and comments were made on the anomalies during ground follow-up, such as:

a) granite outcrop effect – small granite outcrops projecting through radiometrically opaque cover
b) ‘warm’ spots within larger granite masses; usually more biotitic granite phases adjacent to the porphyritic granite type
c) Clay pan and flood plain anomalies from daughter uranium products absorbed in clays
d) Residual and transported laterite with uranium daughter products co-precipitated with the Fe in laterite
e) Lower Proterozoic sediments that have a higher radioactive background than other lithologies
f) Anomalies associated with groundwater springs

The results from the previous uranium exploration are still being evaluated, with bottom-of-hole geology compilation to map areas covered by Cainozoic cover.

Several companies have explored for diamonds. Stockdale Prospecting carried out exploration for diamonds on several contiguous EL’s (including EL’s 6648, 6651 and 6652 which covered much of EL25176). Stream sediment, soil sampling and heavy mineral sampling was carried out. Stockdale identified a number of magnetic dipolar anomalies from a reinterpretation of the regional magnetic data but none of the anomalies are within EL25176.

Ashton Mining also explored EL 7086 for diamonds but with little success and have concentrated their exploration efforts west of EL 25176.
6. EXPLORATION DURING YEAR 1

Work done during Year 1 of tenure consisted of historic data compilation; assessment of available geophysics data (both in Appendix B and C) and planning of an airborne geophysical survey (EL25176 was finally removed from the survey plan and was not flown).

The results of previous work are outlined in the previous section (‘Previous Work’). Work done included:

- a) checking NTGS datasets, such as COREDAT, MODAT, Explorer 3
- b) checking of some open file company reports submitted for previous tenure covering EL 25176 (Appendix 1 contains summary)
- c) Checking relevant maps and plans in MapInfo to obtain locations of samples and mapped geology within EL 25176.

From this work;

- a) there are no MODAT occurrences within the tenement
- b) there are no COREDAT holes within the Licence
- c) there are 195 stream sediment samples, of which only 5 samples have gold assays (with max value of 1050ppb Au). Sixty samples (out of 195) had U assays, and a max value of 4ppm U was obtained for the 60 samples (out of 195) within the Licence. The 3 samples with 4ppm U all plot in the eastern blocks that contain Proterozoic Burrell Creek Formation and Chilling Creek sediments.
- d) there are 131 drillholes within the Explorer 3 drillhole collar file within EL 25176. Most of the drilling is shallow RAB (10-20m depth) carried out the Suttons / Mobil JV on EL’s 1599 and 1965.
- e) there are no rock chip samples or soil samples reported in Explorer 3 within the tenement boundary
- f) from the Open File Airborne Geophysics survey there is one survey that covers a few blocks on the eastern side of EL 25176. The survey has E-W flight lines on 200m spacings.
- g) There are 68 samples registered in the DIM Database within EL25176. None of the samples contained diamonds or diamond indicator minerals.

The data compilation work highlighted that:

- a) several different diamond exploration campaigns have been unsuccessful
- b) bottom-of-hole geology from previous drilling is available to assist in identifying geology under cover
c) there has been limited gold exploration along the southern boundary of EL 25176 that is worth follow-up

d) The regional Suttons Motors work identified an anticlinal core structure on the western boundary of EL 25176 that was never investigated. Mapping at 1:50,000 scale covering the southern portion of EL25176 was not used to aid in further exploration.

7. EXPLORATION DURING YEAR 2

Exploration for CR111 during year 2 primarily focused on EL24984. Exploration aimed to demonstrate the Litchfield Province has the potential to host Sally Malay style intrusions within the Hayes Creek Orogen.

Exploration on EL25176 during the period was restricted with efforts focused on EL24984. Historical data compilation continued and a review of uranium targets (EL25176, 25195) and tin targets (EL25297) commenced with helicopter and geochemical reconnaissance planned at priority targets in the 2009 field season. None of the priority targets were within the relinquished ground.

8. EXPLORATION DURING YEAR 3

During Year 3, reconnaissance, ground geophysical and geochemical sampling of radiometric anomalies (uranium focused) was undertaken at eight sites across EL24984, EL25195 and EL25176. A total of 6 soil samples, 4 rock chip samples and 16 spectrometer assays were taken across all tenements. 3 of the rock chip samples and 5 of the spectrometer assays are located within the relinquished ground on EL25176 (Appendix D). No significant results were returned although outcrop of the unconformity between the Chilling Sandstone and the underlying Proterozoic sediment was located. Figure 3 shows the sample locations.
9. EXPLORATION DURING YEAR 4

Territory Uranium intended to complete a radiometric survey over this tenement in year 4 but due to budgeting restraints was unable to complete the survey. The tenement was subsequently relinquished due to Territory Uranium being unlikely to meet expenditure commitments in year 5 and 6.
10. REFERENCES


Fahey, J.E., and Edgoose, C.J., 1986. Explanatory Notes Anson 4971; *100,000 Geological Map Series, Department of Mines and Energy, Northern Territory Geological Survey*

Glass, L., 2007. Geochemistry of mafic rocks in the Litchfield Province, western Pine Creek Orogen: Evidence for a Paleoproterozoic arc-related setting and links to the Halls Creek Orogen.


Pietsch, B.A., 1972. Explanatory Notes Reynolds River 5071; *100,000 Geological Map Series, Department of Mines and Energy, Northern Territory Geological Survey*

APPENDIX A, Historic tenure data:

File names:

Previous Tenure on EL25176.xls
APPENDIX B, MapInfo geo-referenced data from previous work Yr1:

File names:

- `EL 25176 magnetics and radiometrics.doc`
- `el25176 analytic signal.jpg`
- `el25176 analytic signal.TAB`
- `el25176 thorium.jpg`
- `el25176 TMI with anomaly areas.jpg`
- `el25176 TMI with anomaly areas.TAB`
- `el25176 TMI.jpg`
- `el25176 total count.jpg`
- `el25176 uranium.jpg`
- `el25176 uranium.TAB`
- `el25176 u-th ratio.jpg`
- `el25176 u-th ratio.TAB`
- `Anomaly 1 Model Results Line 8496500N.emf`
- `Anomaly 1 TMI Plan and Profile Location.emf`
- `Anomaly 2 TMI Plan and Profile Locations.emf`
- `Anomaly 3 8472700N Model Profile.emf`
- `Anomaly 3 8474800N Model Profile.emf`
- `Anomaly 3 TMI Plan & Model Profiles.emf`
- `Anomaly 4 8466500N Model Profile.emf`
- `Anomaly 4 TMI Plan & Model Profile.emf`
APPENDIX C, Lindeman Geophysics data on EL25176:

File names:

- Au values from Exp3 stream seds.DAT
- Au values from Exp3 stream seds.ID
- Au values from Exp3 stream seds.MAP
- Au values from Exp3 stream seds.TAB
- CR19810309_anticlinal_core_structure_for_investigation.DAT
- CR19810309_anticlinal_core_structure_for_investigation.ID
- CR19810309_anticlinal_core_structure_for_investigation.MAP
- CR19810309_anticlinal_core_structure_for_investigation.TAB
- CR19810309_InterpGeoI_50k_Scale.TAB
- CR19810309_InterpGeoI_50k_Scale.tif
- EL 25176 outline.DAT
- EL 25176 outline.ID
- EL 25176 outline.MAP
- EL 25176 outline.TAB
- Exp3 Drillholes.DAT
- Exp3 Drillholes.ID
- Exp3 Drillholes.MAP
- Exp3 Drillholes.TAB
- Explore3 Stream Seds.DAT
- Explore3 Stream Seds.ID
- Explore3 Stream Seds.MAP
- Explore3 Stream Seds.TAB
- U of 4ppm from Exp3 stream seds.DAT
- U of 4ppm from Exp3 stream seds.ID
- U of 4ppm from Exp3 stream seds.MAP
- U of 4ppm from Exp3 stream seds.TAB
APPENDIX D, Sampling Data:

File names:

- EL25176_SoilsandRocks_RelinquishmentYR4.txt
- EL25176_SpectrometerAssays_RelinquishmentYR4.txt