

ANNUAL EXPLORATION REPORT

EL 24975

**FOR PERIOD ENDING 17th SEPTEMBER 2007
'ATTACK CREEK'
TENNANT CREEK NT**

Tennant Creek SE5314	1:250,000
Flynn 5759	1:100,000
Short Range 5659	1:100,000

Titleholder: Territory Uranium Company Limited

Report No. 2007-007
Prepared for Territory Uranium Ltd
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tiff files

1. SUMMARY

EL 24975 is roughly 70 kilometres North north west of Tennant Creek, lying some seven kilometres west of the Stuart Highway. Territory Uranium Company Pty Ltd is primarily exploring for Cu, Au and U. Other commodities that can not be ignored are economic quantities of manganese and iron. Work during Year 1 of tenure consisted of a review of both NTGS data, a review of the regional TMI and compilation of significant results from Industry reports. Geochemical data was georeferenced in MapInfo to outline areas of identified anomalies. MIM explored the region in the 90's where they noted that copper and zinc anomalism was probably related to manganese scavenging. Previously CRA exploration covered the ground during the 1980's and tested for uranium, they also did brief studies involving base metals and gold. No kimberlitic indicators were identified

Work during Year 2 will include field reconnaissance, sampling and remote data acquisition that was regrettably not completed during the current year.

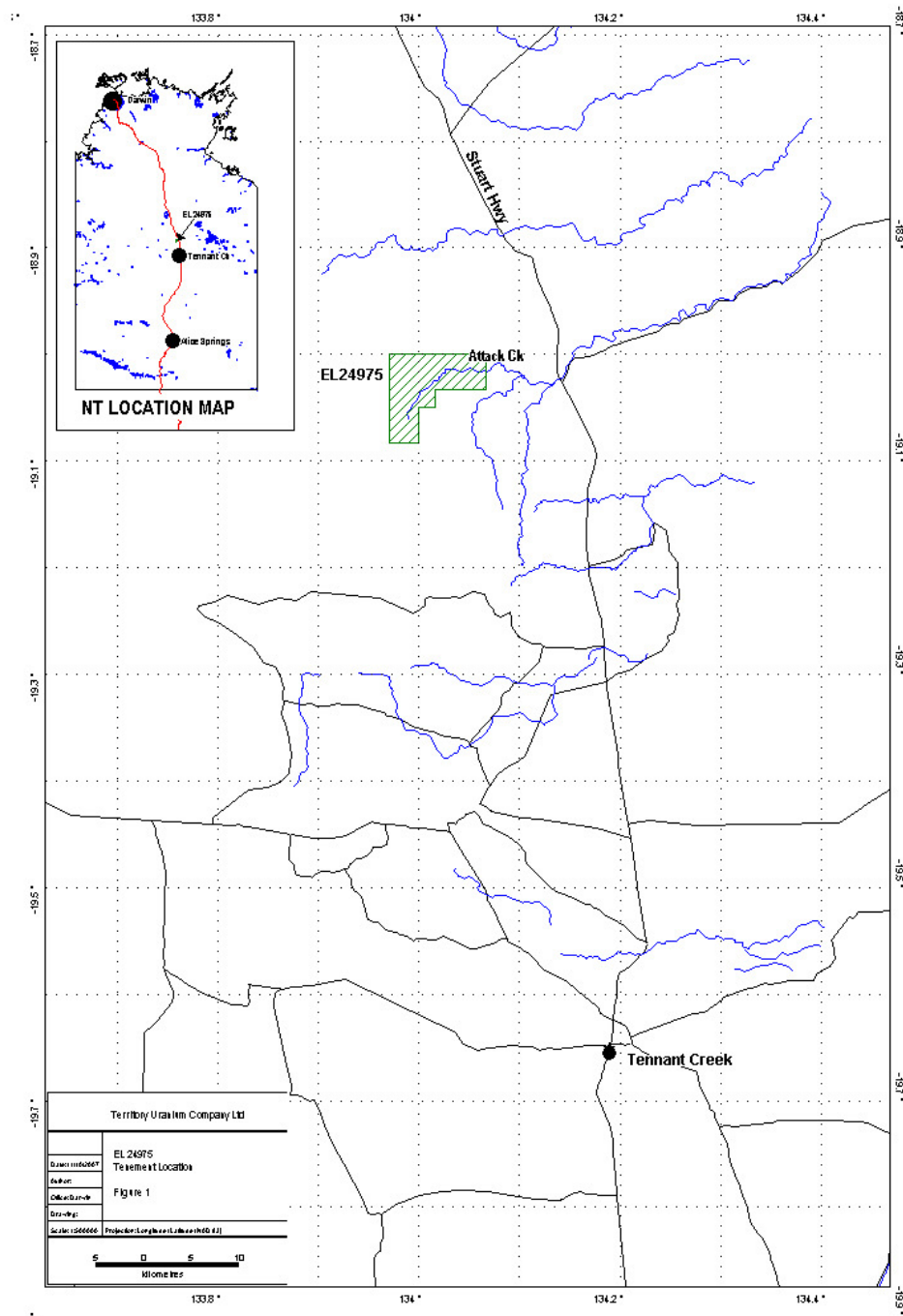
2. LOCATION AND ACCESS

EL24975 is situated approximately 70km NNW of Tennant Creek, NT (Figure 1). The western boundary of the Licence runs approximately seven kilometres west of the Stuart Highway. The tenement surrounds Attack Creek.

Topography is controlled by Attack Creek which drains to the east. The western portion of the Licence has the higher relief where the exposure of sandstones is generally good. Attack Creek can flood in heavy rains during the wet season.

The area has arid, 'tropical' climate with long hot summers and short mild winters. Rainfall peaks over the summer period (December to February) with up to 100mm during January (mostly storm related). Temperatures can range from 10°C during the winter into the high 30s for extended periods during summer.

Figure 1: EL24975 Tenement Location



3. TENEMENT STATUS AND OWNERSHIP

EL 24975 was granted on 18th September 2006 and expires on 17th September 2012. The tenement comprises 19 graticular sub blocks (57.6 sq km) (Figure 3). There are no other current mining leases or mineral claims shown within the Licence boundaries.

Underlying cadastre is all Perpetual Pastoral Lease, Landowners are as follows:

000 01311 Banka Banka Perpetual Pastoral Lease 938
S. Kidman and Co Ltd. (ABN 36 007 872 317)
GPO Box 346, North Adelaide SA 5006

000 00408 Phillip Creek Perpetual Pastoral Lease 946
Noel and Dallas Gayle Daley
Caiwarra Station Julia Creek QLD 4823

The expenditure covenant set for the first year was \$21,700.

4. GEOLOGY

EL 24975 is situated in the north eastern portion of the Tennant Creek SE 53-14 1:250,000 Geological Map Sheet. Descriptions of the *most* recent geological interpretation of the geology and stratigraphy of Tennant Creek region can be found in the 1:250,000 Tennant Creek Geological map series and explanatory notes (Donnellan, et al 1999) with further additions made from 1:500,000 Geological Mapping and Interpretation of basement geology (Donnellan and Johnstone, 2004; Donnellan 2004).

EL24975 is mapped as containing stratigraphic sequences from the Tomkinson Creek Group, which is younger than the Warramunga Formation. The Tomkinson Creek Group is mainly sedimentary (sandstone, dolostone, shale and some basalt) ranging in age from Palaeozoic to Mesoproterozoic. The province is described as 'unmetamorphosed and weakly deformed shallow marine sedimentary rocks belonging to the North Australian platform cover.' The Tomkinson Creek Group hosts the substantial deposits of manganese at Bootu Creek to the north.

Mapped stratigraphy within EL24975 includes;

Phanerozoic (Neogene) (Qa): Sand, silt, clay, gravel; alluvial

Cainozoic (Cz): Sand, silt, clay, gravel, ferricrete, silcrete

Mesozoic (Cretaceous?) (M): Conglomerate, sandstone, siltstone, mudstone

Short Range Sandstone (Pts): Lithology is as follows - Quartz arenite, sublithic and lithic arenite, feldspathic sublitharenite, and siltstone. Depositional environment is suggested to be predominantly shallow marine littoral to subtidal, minor fluvial or deltaic (Hussey, et al 2001). The Short Range sandstone is topographically prominent.

Morphett Creek Formation (Ptm): Lithology described as Sublithic/lithic arenite, feldspathic arenite, siltstone; dolostone, sandy dolostone; minor conglomerate. Depositional environment is suggested to be fluvial to shallow marine, continental red beds to marginal shallow marine including peritidal flats and sabkha. Some shallow marine channels.

Hayward Creek Formation (Pth>c): Sublithic/volcanilithic arenite Depositional environment is suggested to be fluvial to shallow marine, intertidal, periodic subaerial exposure.

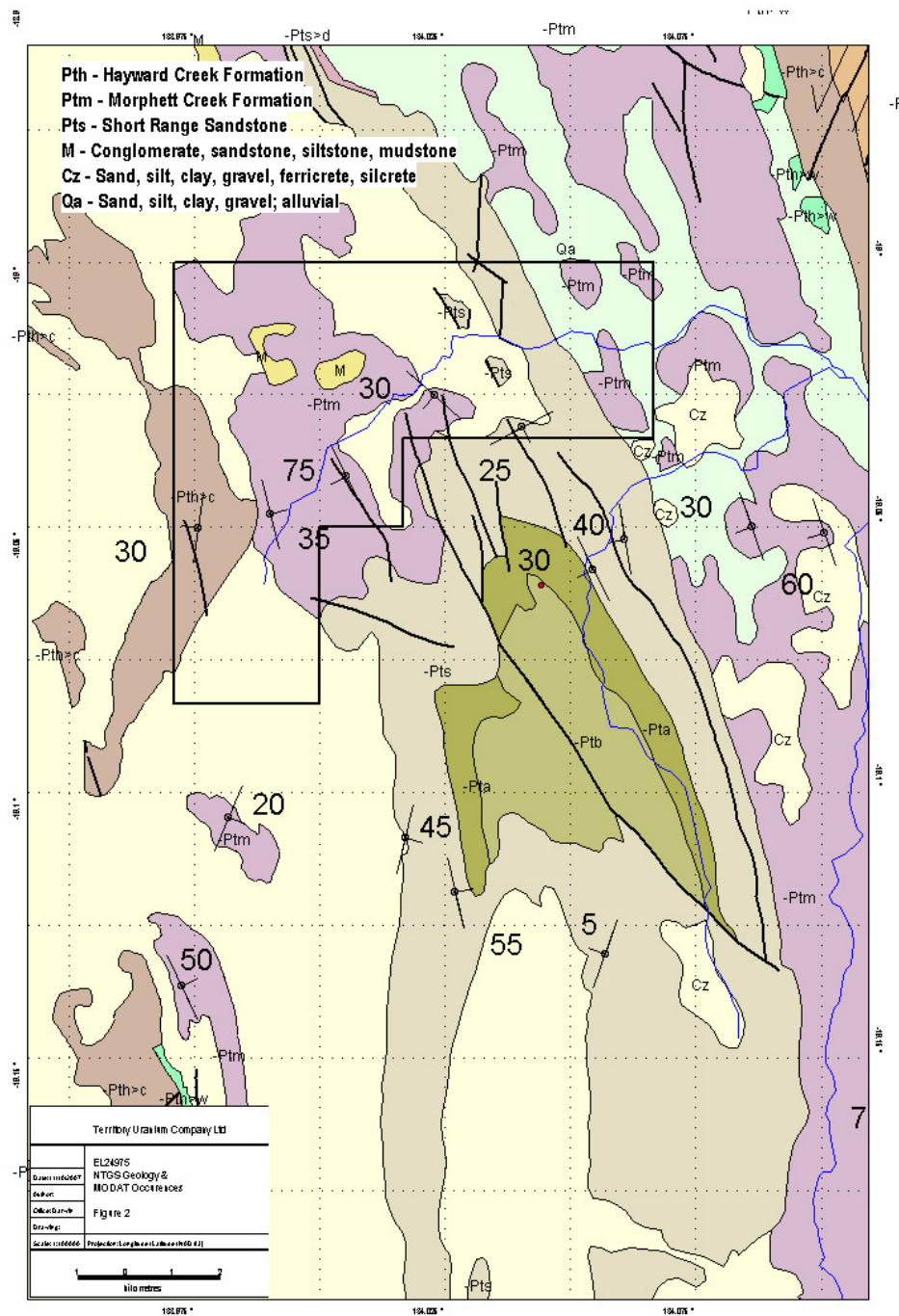
Hayward Creek Formation is predominant in the west of the tenement, with the Morphett Creek formation in the centre through to the Short Range Sandstone and back into the Morphett Creek Formation in the east. Sand, silt, clay, gravel and alluvials are also a major part of the eastern drainage of this region (Donnellan, et al 1999).

The Formations belong to the Tomkinson Creek Group, which has an approximate age range of between 1400 – 1700Ma.

Faulting is mostly in a north north west and south south east direction with synformal and antiformal measurements being noted on the NTGS Map.

There are no recorded MODAT occurrences within EL24975, however roughly three kilometres from the tenement an unnamed manganese occurrence occurs in Bootu Formation.

Figure 2: EL24975 NTGS Geology and MODAT Occurrences



5. PREVIOUS EXPLORATION

Part of the work done on EL24975 for this year includes a literature review and data compilation and the results are in the section below. Figure 3 shows the graticular block numbers within EL 24975, and Appendix 1 contains the list of previous tenure, plus the graticular blocks within EL 24975, and significant reports from previous tenure. Use Figure 3 and blocks in Appendix 1 to see the extent of previous tenure within EL 24975.

EL7660 was extensive tenement that covers the entirety of EL24975. In 1993, MIM Exploration undertook an extensive stream sediment survey (117 samples at -200#) that focussed on the Bootu Formation where they sampled for Cu, Pb, Zn, Fe, Mn and Au. Two Copper assays (210ppm and 175ppm) of interest were returned and all lead and zinc values were at back ground. Only manganese stained outcrops were noticed. Four of the samples lie within EL24975 and were also at background level. The ground was relinquished and the samples were not followed up.

EL6680 was another extensive tenement that covered three quarters of EL24975. Carpentaria Exploration Company Pty Ltd carried out exploration during 1990. Rock chip sampling was undertaken with *anomalous* copper and zinc results being ascribed to scavenging of base metals by manganese and iron during the weathering process. Mapping work showed that the region did not match the stratigraphy of the McArthur Group.

EL 2354 covers EL24975. Exploration was carried out by CRA Exploration during the early 1980s. First year exploration concentrated on discerning the validity of three uranium responses from a BMR Geophysical survey across the region during 1960. Three anomalies were outlined. Area 3 is defined as a 'BMR class C' radiometric anomaly over Morphett Creek Formation (Sublithic/lithic arenite, feldspathic arenite, siltstone; dolostone, sandy dolostone; minor conglomerate). Spectrometer readings showed elevated Potassium and Thorium but no peaks in the Uranium channel. A couple of kilometres to the east in Area 1 a 6ppm U sample was taken in a thin sandstone unit. The spectrometer reading for the area equated to 4500ppm K, 26ppm U and 12ppm Th. Area 2 located to the south of EL24975 in 'Attack Creek Formation' showed elevated potassium, minor thorium and no uranium.

Second year exploration involved followup of a magnetic anomaly with ground magnetics to determine whether the anomaly was kimberlitic in nature. The magnetic response was determined to be a basic volcanic of the Tomkinson Creek

Group. Both geochemical and gravel/loam sampling was undertaken. No kimberlitic indicators were identified and no metal values were returned (Pb, Zn, Cu, Ni, Co, Cr, Mn, Ag, Au, Sn and W were sampled). Geology mapped by CRA exploration only vaguely correlates with the NTGS interpretation.

6. EXPLORATION DURING YEAR 1

Work done during Year 1 of tenure consisted of a historic data compilation and geophysical interpretation of the region by Frank Lindeman consultant geophysicist.

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

- a) historic tenure in MapInfo, using a MapInfo file supplied by DPIFM (containing exploration tenure, but not mining tenure)
- b) checking historic tenure from old Titles tenure sheets (which contain mining as well as exploration tenure) of 1:250,000 from 1962 to 1995; 1:100,000 (Short Range & Flynn) from 1974 to 1995.
- c) checking NTGS datasets, such as COREDAT, MODAT, Explorer 3
- d) checking open file company reports submitted for previous tenure covering EL 24975
- e) georeferencing relevant maps and plans into MapInfo to obtain locations of samples and mapped geology within EL 24975 (Appendix 3).

From this work;

- a) a list of previous tenure and Industry reports are in Appendix 1.
- b) there are no mineral claims or mining leases recorded in the Licence area from 1976 onwards.
- c) there are no MODAT occurrences within the tenement.
- d) no rock chip samples, soil samples, stream sediment samples or drillholes were reported in Explorer 3 or COREDAT within tenement boundaries.
- e) no positive results from DIM Database

The data compilation work shows that uranium exploration has been minimal and concentrated on remote data analysis. A six ppm U sample was obtained from a thin sandstone unit in the Morphett Creek Formation approximately one kilometre to the eastern most boundary of EL24975. Base metal and diamonds have been explored for within the tenement but there were no fruitful discoveries. There has been no gold exploration within the tenement.

Work by the NTGS shows the Tomkinson Creek Group to be mainly unmetamorphosed, with an age range between 1400Ma and 1700Ma (Ahmad & Scrimgeour, 2004). Considering that the gold mineralisation event at Tennant Creek has been dated as being between 1830Ma to around 1810Ma (depending on which geochronological study is quoted) there is a large discrepancy in the age of the main

known gold mineralising event and the age of the rocks. Therefore Tennant Creek-style gold mineralisation is not considered an exploration target for this tenement.

A consultant geophysicist (Frank Lindeman) has produced introductory images of analytic signal and TMI aeromagnetics. (See Figures 4 for TMI and Figure 5 for Analytic signal image). The data was obtained from the aeromagnetic survey flown over the Tennant Creek sheet by AGSO in 1998 using 200m spaced north-south flight lines at a height of 60m.

EL24975 lies on the north east edge of the strong, regional scale north-western magnetic anomaly. Examination of the complete "regional magnetic response" shows the strong, smooth nature of the deep regional response while the responses from the narrower and shallower sources are superimposed upon it. Figure 5 is the analytic signal produced from the TMI. This is essentially a high pass filter, which highlights the responses from the shallow magnetic sources at the expense of the very deep regional response from the deep sources. The main target responses in the Tennant Creek region traditionally have been small discrete anomalies as expected from ironstone bodies. Within the shallow responses identified within the EL there are no discrete and isolated anomalies, which could represent ironstones.

Territory Uranium is looking for sites of uranium enrichment along unconformities / fault structures or at changes in lithology in areas of radiometric anomalies. The exploration involves

1. Interpretation of regional radiometrics to determine anomalies
2. examination of water bore data, both in field and radiometric logging of chips held in the NTGS core library
3. ground radiometric survey and reconnaissance geological mapping over airborne radiometric anomalies.

Other work in the region includes the NTGS regional phosphate study. Water Bore Reports were not available from NRETA as none occur within this tenement.

Figure 4: EL24975 TMI Aeromagnetics

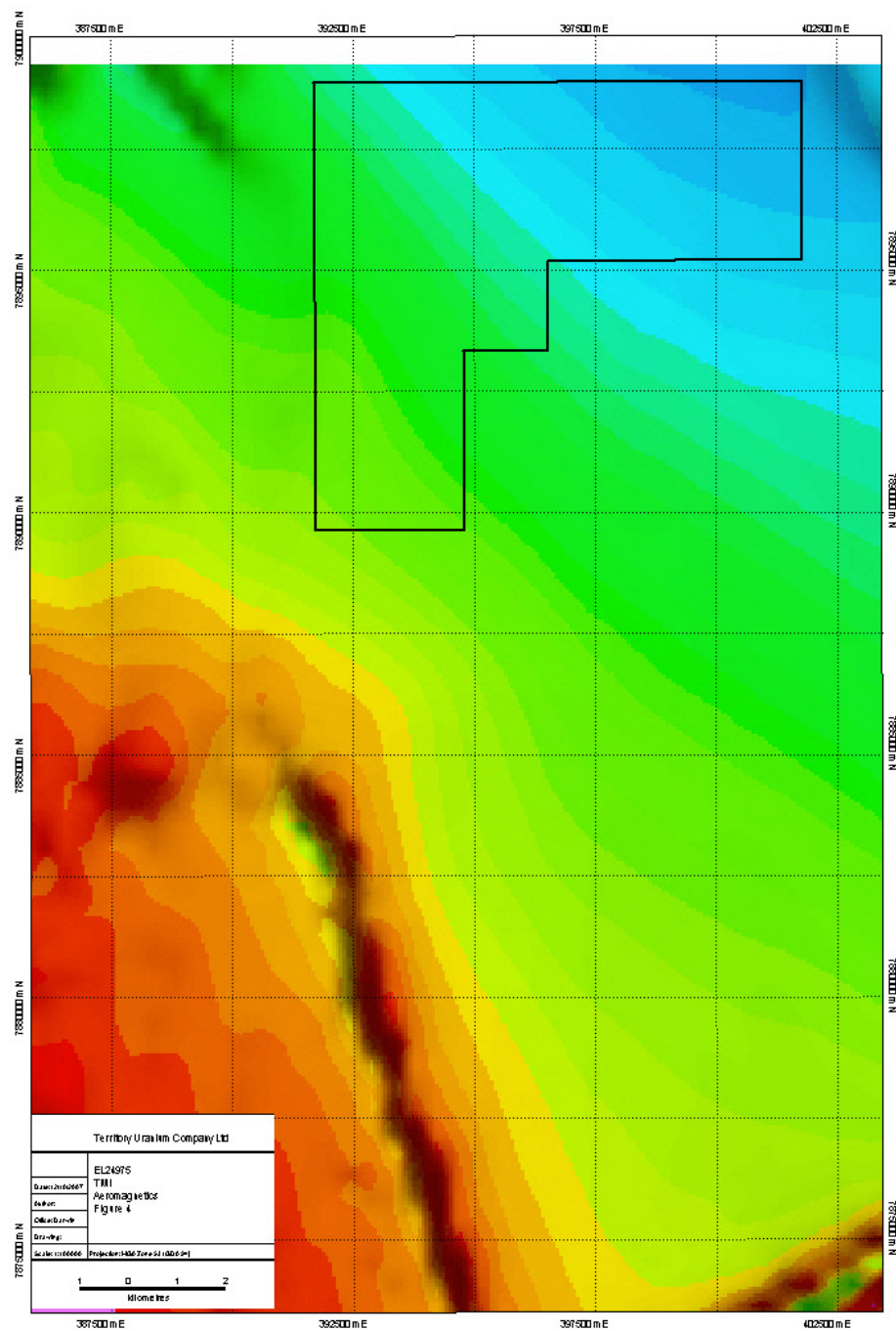
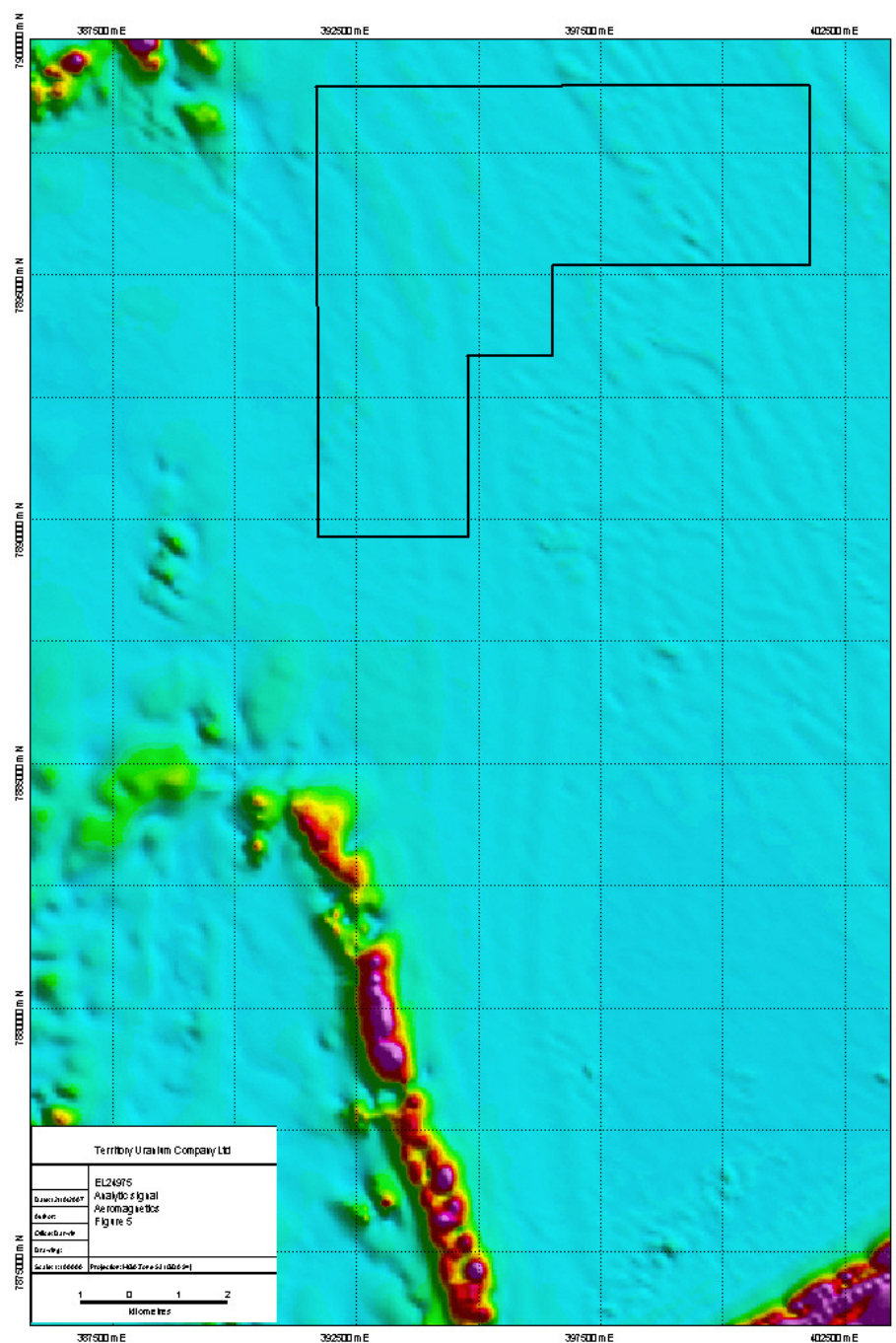


Figure 5: EL24975 Analytical Signal Aeromagnetics



7. PLANNED EXPLORATION FOR YEAR 2

Planned work includes;

1. Production of radiometric maps using regional radiometrics to identify radiometric anomalies
2. Field reconnaissance/ground scintillometry/geological mapping and sampling over the anomaly identified by work done by CRA to identify areas that may host uranium mineralisation
3. Geochemical Analysis – rock chip sampling and possibly soil sampling
4. Geophysical Consultants
5. Ranking of area with other Territory Uranium tenements

At this stage the Licence may have some potential for uranium mineralisation, but not Cu-Au mineralisation.

Proposed expenditure is expected to be similar to what was set out in the first year covenant, at least \$21,700.

8. EXPENDITURE

Expenditure (as supplied by Territory Uranium) follows:

Maps and Publications	\$44.89
Office Studies	\$44.89
Overheads	\$13.47
TOTAL	\$103.25

Not included in this figure is the Tenement Rent

The expenditure figure is not considered a 'real' cost figure as these costs do not include the bulk of the work by F. Lindeman and the data compilation. While these activities took place within the anniversary period, the invoices for this work came after 30th September and so have not been included within this anniversary period. The expenditure during the first year would be higher.

9. REFERENCES

Ahmad, M and Scrimgeour, I., 2004. Geological map of the Northern Territory 1:2,500,000 scale. *Northern Territory Geological Survey*.

Donnellan, N., Morrison, R.S., Hussey, K.J., Ferenczi, P.A., and Kruse, P.D. 1999. Explanatory Notes Tennant Creek SE53-14, 1:250,000 Geological Map Series. *Department of Mines and Energy, Northern Territory Geological Survey*.

Donnellan, N. 2004. Geology of the Tennant Region 1:500,000 scale. *Northern Territory Geological Survey*.

Donnellan, N. and Johnstone, A., 2004. Mapped and Interpreted Geology of the Tennant Region 1:500,000 scale. *Northern Territory Geological Survey*.

Hussey, K.J., Beier, P.R., Crispe, A.J., Donnellan, N., and Kruse, P.D. 2001. Explanatory notes 2nd Edition Helen Springs SE 53-10, 1:250,000 Geological Map Series. *Department of Mines and Energy, Northern Territory Geological Survey*.

Johnstone, A. 2001. Tennant Creek bedrock interpretation. Annual Geoscience Exploration Seminar, Record of Abstracts. Record 2001-006. *Northern Territory Geological Survey*.

Appendix 1

List of Company Reports from Previous Tenure

Appendix 2

MapInfo files created from data compilation and sample results tiff files