



EL25366

Final Report

Reporting Period: 11.01.2007 – 13.01.2011

Date: April 2011
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Map Sheets: 1:250,000 Barrow Creek
1:250,000 Mount Peake

SUMMARY

Uramet Minerals Limited identified the potential for a calcrete-hosted uranium occurrence within the Wilora palaeo-channel approximately 180 km north of Alice Springs, NT.

This report details exploration work carried out by Uramet Minerals Limited within EL25366 between 21 11 January 2007 and 13 January 2011.

The tenement which was originally held by Elkedra Diamond NL was transferred to Uramet Minerals Limited during the 2007 season. The original tenement size was 477 blocks, covering an area of 1,422 km².

Exploration consisted of regional reconnaissance work; water bore sampling, vegetation sampling, aircore drilling, mineral chemistry and geochemistry analysis, VTEM and gravity.

As part of an extensive aircore drilling program 127 holes for 2,374m were drilled within the tenement in September and October 2007. The drilling revealed an extensive uranium anomaly with the best intersection of 200 ppm uranium measured with a handheld XRF.

Mineral chemistry (scanning electron microscope (SEM) work on 6 samples) revealed a better understanding of the timing and mechanism of the calcrete system. Geochemistry (XRF and ICP on 214 samples of 16 drill sites) identified main mineral phases and chemical composition of the palaeo-channel system.

CONTENTS

1. Introduction	4
2. Tenure	4
3. Geology	5
3.1 Regional Geology	5
3.2 Tenement Geology	5
4. Previous Exploration Work	6
5. Exploration By Uramet.....	6
5.1 Desktop Review.....	6
5.2 Water Bore Sampling	7
5.3 Vegetation Sampling	7
5.4 Aircore Drilling	8
5.5 Mineral Chemistry.....	9
5.6 Drill Hole Geochemistry	9
5.7 Helicopter-borne Electromagnetic Survey	10
5.8 Gravity Survey	10
6. Conclusions	10
7. References	10

List of Figures

- Figure 1. Location map of EL25366 showing original tenure
- Figure 2. Simplified geological map showing tenure as at 2007
- Figure 3. Summary of exploration work by Uramet within EL25366
- Figure 4. Radiometric map of the Wilora palaeo-channel area
- Figure 5. Vegetation sampling in 2007
- Figure 6. Uranium distribution at Wilora

Appendix - digital data files

Data	File Name
Report	EL25366_2011_F_01_Report.pdf
Water Geochemistry	EL25366_2011_F_02_WaterGeochem.txt
Vegetation Geochem	EL25366_2011_F_03_VegGeochem.txt
Drill Collars	EL25366_2011_F_04_DrillCollars.txt
Downhole XRF Geochemistry	EL25366_2011_F_05_DownholeXRFGeochem.txt
Downhole Geochemistry	EL25366_2011_F_06_DownholeGeochem.txt
Lithology Logs	EL25366_2011_F_07_Lithologylogs.txt
Lithology Codes	EL25366_2011_F_08_LithologyCodes.pdf
VTEM	EL25366_2011_F_09_VTEM.zip
Gravity	EL25366_2011_F_10_Gravity.zip

1. Introduction

Exploration License EL25366 is located within Uramet Mineral Limited's Wilora palaeo-channel uranium Project Area located approximately 180 km north of Alice Springs, NT with good road access on the sealed Stuart Highway and a network of established station tracks.

The Aboriginal Areas Protection Authority (AAPA) clearance was conducted prior to field work and any area of cultural significance was avoided.

This report details exploration work carried out by Uramet Minerals Limited within EL25366 between 11 January 2007 and 13 January 2011.

2. Tenure

EL25366 was granted on 11 January 2007. The tenement originally comprised 477 blocks, covering an area of 1422 km² (Figures 1 and 2). Obligatory 50% reductions were made as required, with the tenement being surrendered in full on 13 January 2011.

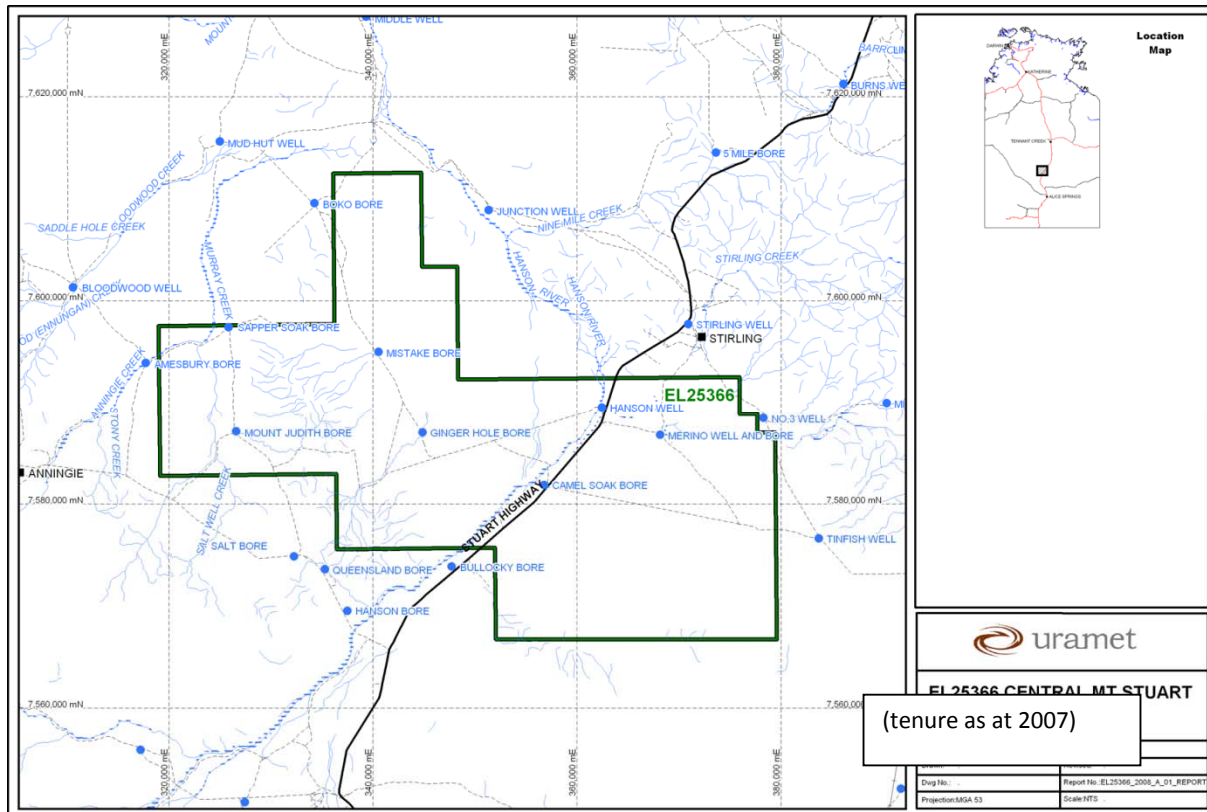


Figure 1. Location map of EL25366 showing original tenure

3. Geology

3.1 Regional Geology

The Wilora palaeo-channel consists of Quaternary to Tertiary silicified calcrete that is part of the Ti-Tree Basin sedimentary succession. The Ti-Tree Basin sediments cover Cambrian and Neoproterozoic sedimentary rocks, which comprise of sandstone, siltstone, shale and conglomerate and carbonate units, which outcrop NNE-ward and W-ward. The basement is primarily granitoid, with several granite exposures to the southwest and southeast of the Wilora palaeo-channel (Figure 2).

Structurally, the northwest trending Dulcie Syncline and Stirling Fault Zone control Cambrian and Neoproterozoic strike directions, which mainly trend NW-SE sub-parallel to regional faults and shears. A secondary set of faults cross cut the stratigraphy with a northeast strike.

3.2 Tenement Geology

The tenement comprises about 30% of the over 50 km long Wilora palaeo-channel that trends NW-ward. Multiple generation calcrete and dolocrete lithologies have accumulated since the Tertiary. In the middle portion of the tenement, two saline lakes belonging to the Tertiary aged Ti-Tree Basin are known to overlie lignite and organic rich sedimentary units. The youngest sedimentary and morphological feature in the area is the northeast-trending ephemeral Hanson River drainage system (Figure 2).

The Wilora palaeo-channel drains towards the northwest and has a catchment area that extends to the Anmatjira Ranges to the southwest; and the Mt Skinner and Strangways Ranges to the southeast.

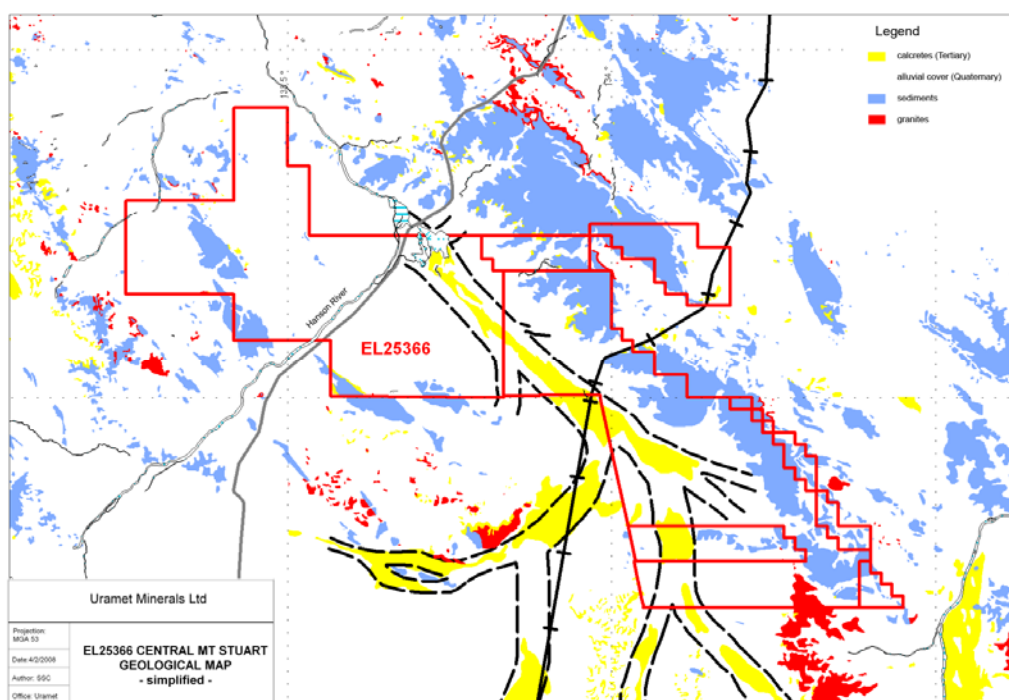


Figure 2. Simplified geological map showing tenure as at 2007

4. Previous Exploration Work

Relatively little exploration has previously been carried out within the Wilora palaeo-channel. Uranium exploration south of the tenement was carried out by CRA 1974 (OFR 19740032) but didn't report any elevated Uranium. Soil sampling and drilling was carried out by ADN in 1998 (OFR 19980568) in the western portion of the tenement close to Mt Stuart but no significant findings were reported.

5. Exploration by Uramet

Exploration work by Uramet was largely targeting uranium mineralisation, and comprised a review of all available data, bore water sampling, vegetation geochemistry, a VTEM survey, a gravity survey, and aircore drilling (Figure 3).

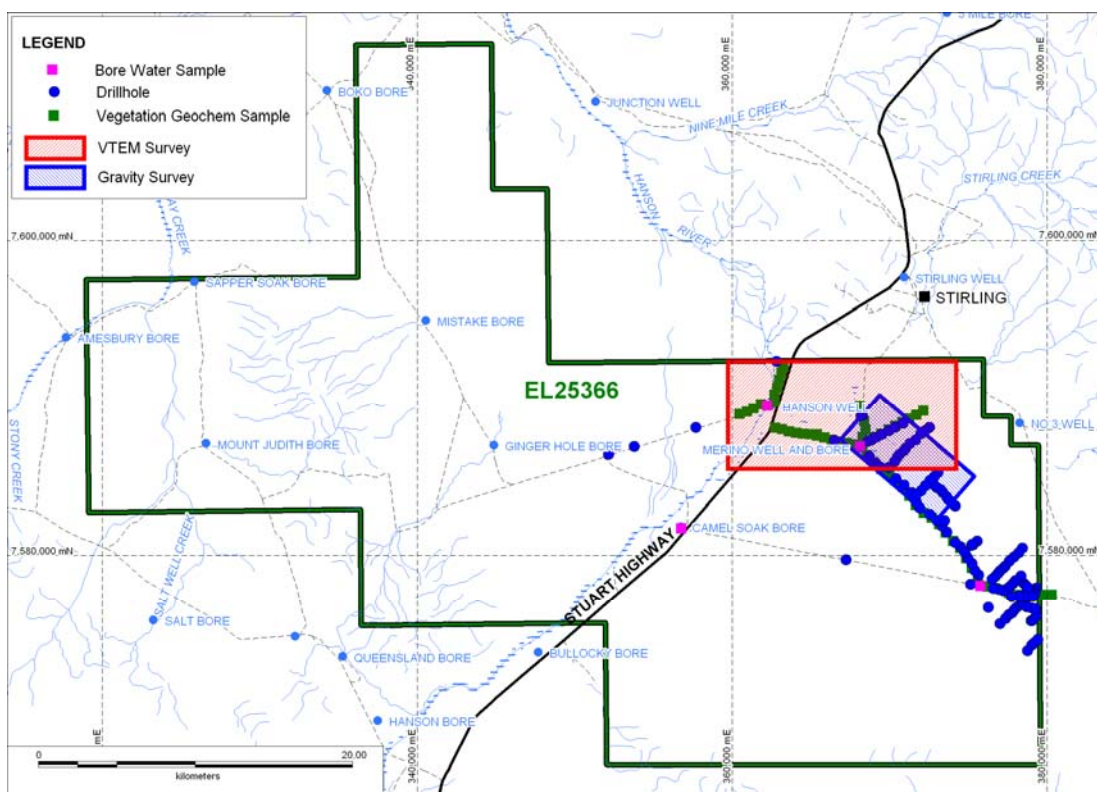


Figure 3. Summary of exploration work by Uramet within EL25366

5.1 Desktop Review

A review of available literature including open file reports indicates that no significant mineral occurrence had been recorded within the tenement previously.

Airborne radiometric surveying completed by the NTGS in 2006 highlighted the radiogenic nature of the granitoid suite and arkoses in the upper reaches of the palaeo-drainage system, which contain significant uranium levels, generally between 9 to 100 ppm U, based on previous rock chip samples. Anomalous levels of uranium were reported from bore water samples (up to 1300 ppb U) and from sediments in streams draining the uranium source rocks.

Airborne radiometric data show uranium anomalies over a section of the Hanson River, over the Wilora swamp and parts of the palaeo-channel within the tenement (Figure 4).

Hence, uranium deposits that are favourable in the tenement could be; calcrete-hosted, sandstone-style and lignite-hosted uranium.

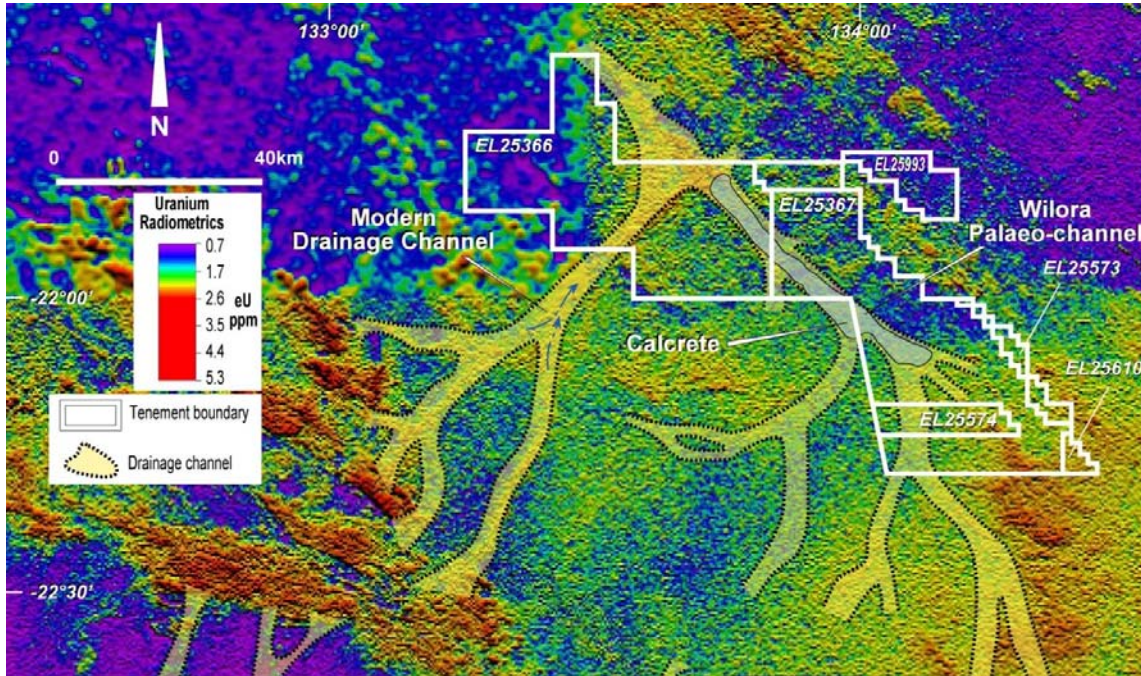


Figure 4. Radiometric map of the Wilora palaeo-channel area

5.2 Water Bore Sampling

Water bore sampling was carried out throughout July 2007 for the purpose to identify uranium enrichment within the palaeo-channel and Ti-Tree Basin. Four samples were analysed at Genalysis Laboratory Services (Perth, W.A.). The results show anomalous uranium up to 54 ppb. Data is appended in digital form.

5.3 Vegetation Sampling

The Wilora Project area was visited in July 2007 (Figure 5) to undertake an orientation uranium biogeochemical survey utilizing the deep-rooted Mulga tree (*Acacia aneura*). The purpose of this type of survey was to locate buried uranium concentrations utilizing the ability of deep rooted plants to transport groundwater and any associated trace elements such as uranium to the surface. Over 70 samples were collected from samples sites located about 500 m apart that both traverse and parallel the Wilora palaeo-channel. A handful of young twigs and phyllodes were cut from each tree and bagged to dry prior to chemical analysis. Sixty nine phyllodes samples were analysed for a suite of elements at Genalysis Laboratory Services (Perth, W.A.) using MS and OES. The results show that uranium levels reach up to 100 ppb around the Wilora swamp area. Base metal concentrations are anomalous in parts of the surveyed area.

Data is appended in digital form.



Figure 5. Vegetation sampling in 2007

5.4 Aircore Drilling

Aircore drilling was carried out throughout September and October 2007 drilling a total of 4359m in 243 holes of which 127 holes are within the tenement. The aim was to target calcrete-hosted Uranium in the upper 15m of the palaeo-channel and lignite occurrences within the Ti-Tree Basin at depth preceding 50m. Drill locations were along tracks or fence lines and also along cleared lines perpendicular to the palaeo-flow direction with spacing of 400m between the lines and 200m or 100m spacing between drill locations along a line. Rig access proved difficult in the central part of the channel due to extensive dune cover across the calcrete.

The uranium is mainly concentrated in the lower part of the calcrete/dolocrete/silcrete succession. The succession occurs as elongated ribbons trending NW, which can be up to 19m thickness in the centre but thinning towards the edges. Vertically, these ribbons consist of weathered calcrete on the surface, soft and occasionally clay rich calcrete, mixed calcrete, dolocrete and silicified dolocrete. The groundwater table sits mainly just below the opalised dolocrete. The aquifer contains mottled calcrete and brownish sands. Groundwater quality tends to be good but gets saline towards the Wilora swamp.

Lignite and/or organic rich seams around the Wilora swamp area were identified in 2 holes out of 7 at depth of more than 50m. Two holes intersect a thick succession of kaolinitic clay around 55-57m, which becomes more carbonaceous with depth. Aircore drilling penetrated 11m of the clay and had to be abandoned at 69m with the highest organic content in the last meter. Drill hole data is appended in digital form.

5.5 Mineral Chemistry

Mineral chemistry analytical work and grain identification on 6 samples was carried out in December using a Philips XL 40 analytical SEM equipped with a ThermoNoran EDS system for quantitative measurements of elements at the Geological Survey of Denmark & Greenland, Denmark.

Results (see Appendix) confirm that the calcrete/dolocrete system was silicified after deposition, filling pore space and occluding and dissolving mainly dolomite. Silica contains up to 12% magnesium. Other minerals identified are calcite, dolomite, barite, heavy minerals, weathered K-feldspars and clays in places. The detection limit of the EDS system was not sufficient to find the finely dispersed uranium.

5.6 Drill Hole Geochemistry

Geochemical analysis (see Appendix) was undertaken on 214 samples collected from 13 drill site of which 12 are within the tenement. Samples were analysed at UltraTrace Laboratory in Perth, W.A., for Al_2O_3 , CaO , Cu , Fe_2O_3 , K_2O , MgO , Pb , SiO_2 , SO_3 , SrO , V_2O_5 , Zn , ZrO_2 , U , Th . Assays have been determined by X-Ray Fluorescence Spectrometry. Au has been determined by Inductively Coupled Plasma (ICP) Mass Spectrometry. Results do not show economic levels of uranium mineralisation.

Most of the samples that contain calcrete, dolocrete and/or silcrete were analysed on site with a portable Niton XRF analyser. Average uranium content is 46 ppm in a total of 550 samples, another 1037 measurements had no detectable uranium (detection limit is around 20 ppm). 942 measurements out of the 1587 were taken within the tenement with the highest value of 203 ppm (Figure 6).

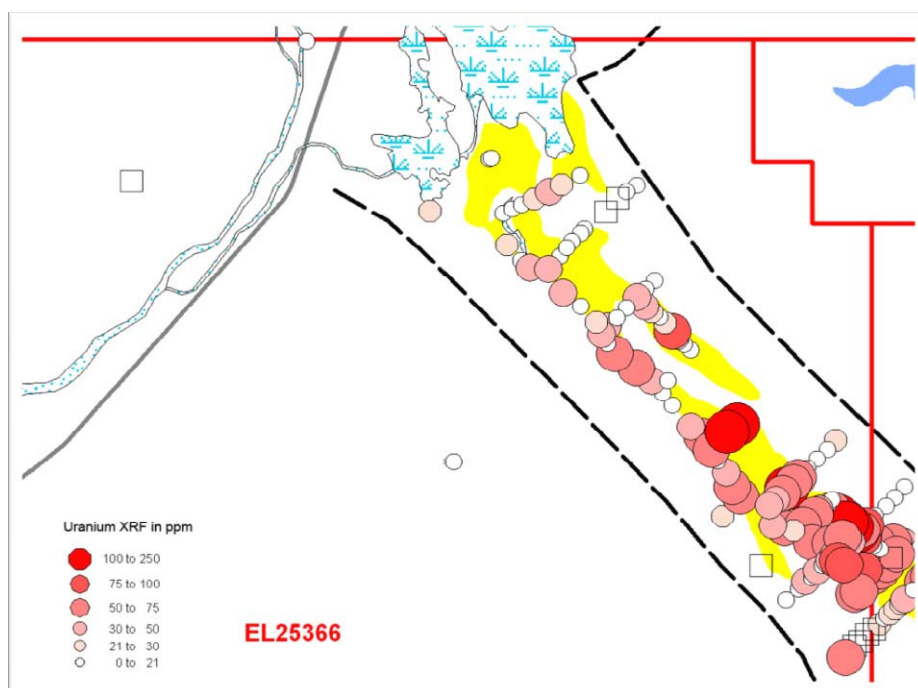


Figure 6. Uranium distribution at Wilora

5.7 Helicopter-borne Electromagnetic Survey

A helicopter-borne EM (VTEM = versatile time domain electromagnetic) survey amounting to 252 line-kilometres was flown by Geotech Airborne Ltd (www.geotechairborne.com.au) in October 2007 and covered the Wilora swamp area. It was hoped that the processed data would help define lignite encountered in a water bore drilled in the 1950's, however the data was not particularly useful for this purpose.

5.8 Gravity Survey

Earlier NTGS aeromagnetic surveys of the area highlighted the presence of two discrete magnetic anomalies albeit at an interpreted depth of approximately 800 metres. During 2008 a 500m spaced survey ground gravity survey (infilling an NTGS regional survey) consisting of 66 stations was conducted in the eastern part of the tenement (Figure 3) to investigate these magnetic anomalies. The contractor used was Atlas Geophysics of Perth, utilising a Scintrex CG5, facilitated by a Robinson R44 Raven II helicopter. No significant gravity anomalies are associated with the magnetic anomalies. Gravity data is appended in digital form.

6. Conclusions

The Wilora Aircore drilling program revealed an extensive uranium anomaly within the palaeo-channel, which is currently not of economic value.

7. References

Dunster JN, Kruse PD, Duffett ML and Ambrose GJ. 2007. Geology and resource potential of the southern Georgina Basin, Northern Territory, NTGS