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Headwaters Project (EL24711-13)

Annual Technical Report For the Period 26/02/10 – 25/02/11

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Titleholder	GE Resources Pty Ltd
Operator	Uranium Equities Limited
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1:100,000 Map Sheet	Howship (5672) Liverpool (5572) Gilruth (5571) Mann River (5671) Snowdrop (5570) Mainoru (5670)
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HEADWATERS PROJECT EL24711-13

EXECUTIVE SUMMARY

The West Arnhem Land region in the Northern Territory is well known for unconformity-related uranium mineralisation such as the Ranger and Jabiluka Deposits. The economic success of this mineralisation style has meant unconformity-related uranium has remained the focus of exploration in the region, however, the depths to the unconformity and prospective basement sequences in some areas such as the Headwaters region have been too restrictive.

A review of the exploration potential of the Headwaters Project identified geological environments that hold similarities for significant near surface “Westmoreland-style” uranium and Coronation Hill-style gold-platinum-palladium-uranium mineralisation.

Exploration during the first year of tenure for EL24711, EL24712 and EL24713 consist predominately of regional targeting investigations. Desktop geochemical and structural analysis studies, mineral alteration and spectral interpretation of Landsat ETM+7 and ASTER satellite data to assist in prioritising targets and an airborne magnetic-radiometric survey of 8298.6 line km in the south-eastern part of EL24713.



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1. INTRODUCTION

1.1 Location and Tenure

The Headwaters Project is located in the prospective West Arnhem Land region, approximately 300km east of Darwin (Figure 1) and covers an area of 5351.7km². The region is well known for economic-grade uranium mineralisation such as the Ranger, Jabiluka and Nabarlek deposits. The tenements are situated along the southeast margin of Kakadu National Park.

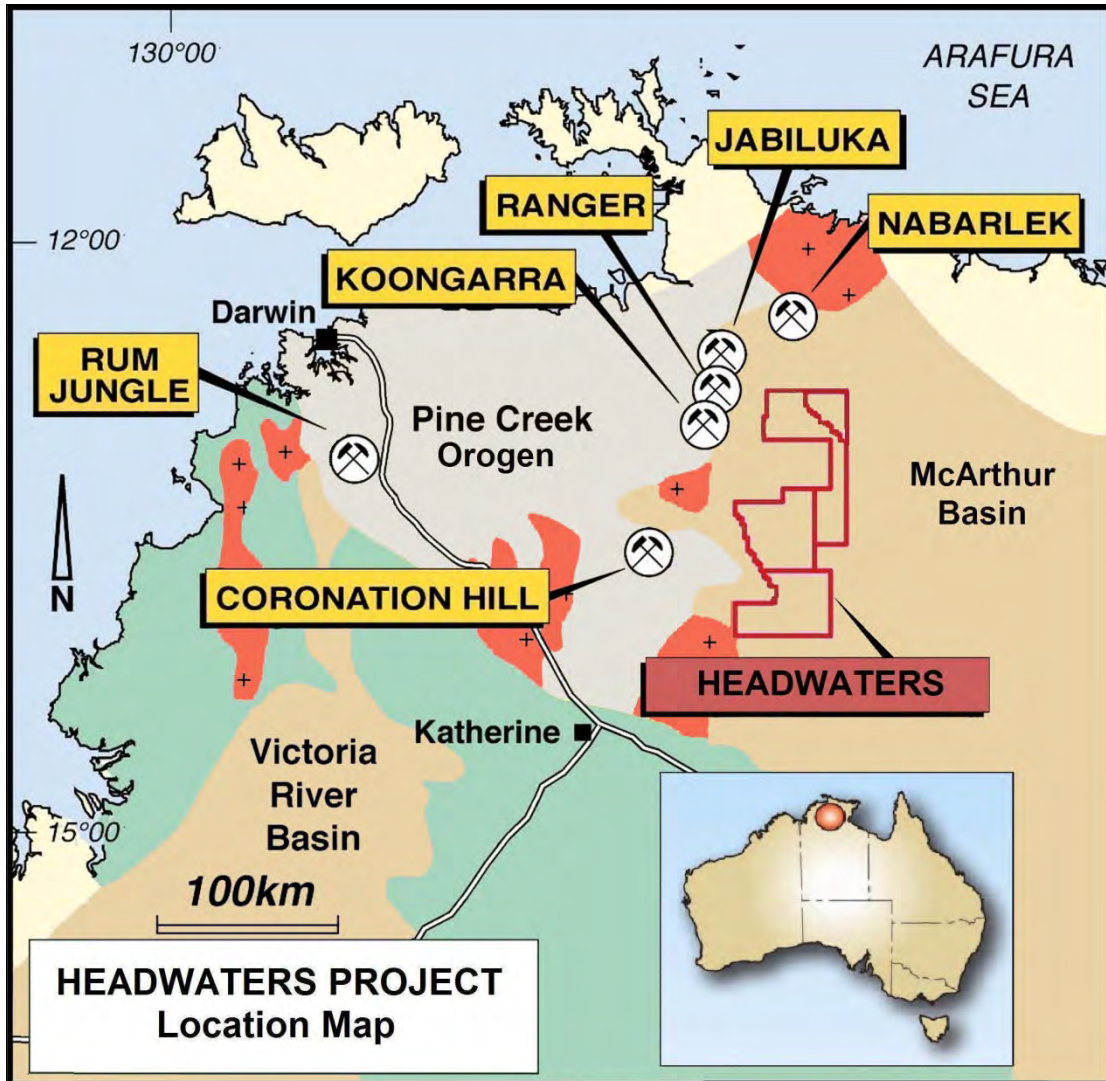


Figure 1: Location Map



The Headwaters Project area comprises four granted exploration licences, EL25220, EL24711, EL24712 and EL24713, and four exploration licence applications (Figure 2). Consent to grant EL25220 was given late in 2008 and EL24711, EL24712 and EL24713 given early in 2010. This report contains the 2010 exploration program for EL24711, EL24712 and EL24713. EL25220 is reported separately.

Non-consent areas excised from all four granted exploration licences have been applied for by GE Resources Pty Ltd as separate exploration licence applications. ELA27153, ELA27513, ELA27514 and ELA27515 were made to cover non-consent ground. These exploration licence applications are currently in moratorium.

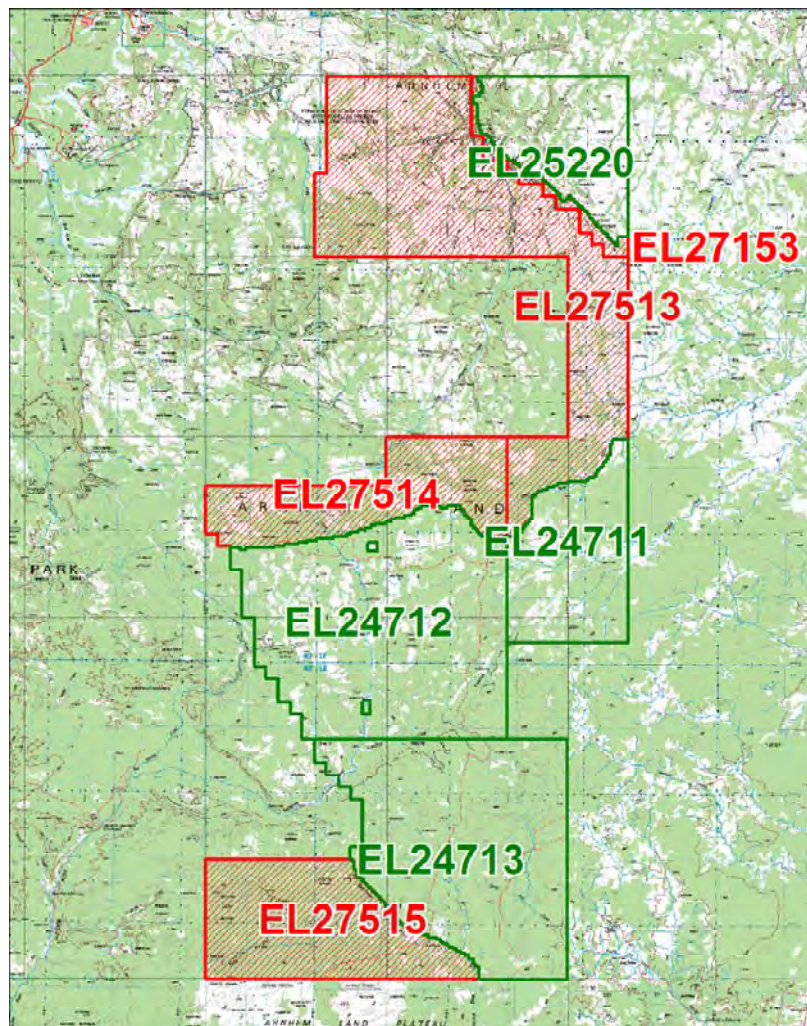



Figure 2: Map of Headwaters tenements and EL Applications

The tenement package that makes up the Headwaters Project and their current status are listed below.



Tenement	Holder	Manager	Status	Area (km ²)
EL24711	GE Resources Pty Ltd	Uranium Equities Limited	Granted	436.6
EL24712	GE Resources Pty Ltd	Uranium Equities Limited	Granted	1191.1
EL24713	GE Resources Pty Ltd	Uranium Equities Limited	Granted	1051.3
EL25220	GE Resources Pty Ltd	Uranium Equities Limited	Granted	391.5
ELA27153	GE Resources Pty Ltd	Uranium Equities Limited	Moratorium to Nov 2013	57.1
ELA27513	GE Resources Pty Ltd	Uranium Equities Limited	Moratorium to June 2014	1212
ELA27514	GE Resources Pty Ltd	Uranium Equities Limited	Moratorium to June 2014	448.1
ELA27515	GE Resources Pty Ltd	Uranium Equities Limited	Moratorium to June 2014	559.8
Total				5347.5

Table 1: Headwaters Tenements

1.2 Access

A dirt track runs through the tenements from the south of EL24713 and terminates on the northern border of EL24711. The track, known as Bat Guyangguyang to the Traditional Owners, extends 160km northeast from Eva Valley through to the site of the base camp utilised by previous exploration companies near the headwaters of the Mann River.

1.3 Heritage

The Headwaters tenements are located on Aboriginal Freehold land, and therefore require access approval of the traditional owners. Exploration agreements have been signed with the NLC who represent the traditional owners.

A Work Program Meeting was held in April 2010 with the Traditional Owners and relevant organisations including the Jawoyn Association Aboriginal Corporation.

Current NT legislation requires that all sacred, cultural and heritage sites are initially documented by the Traditional Owners and NLC Anthropologists and Archaeologists prior to exploration commencing. This information has been utilised to set up 'No-Go' areas.

UEL has undertaken an Aboriginal Areas Protection Authority register inspection to determine if there are any registered sacred sites with the area. These have also been marked as "No-Go areas" within our GIS systems.



2. GEOLOGY

2.1 Regional Geology

The regional geology is characterised by intensely deformed and metamorphosed sedimentary successions of the Pine Creek Basin, notably the Palaeoproterozoic age Nimbuwah Complex Metamorphics and Myra Falls Metamorphics. These basement rocks are host to the major unconformity related uranium deposits of the Alligator Rivers region. Deformation and metamorphism is attributed to the Barramundi Orogeny (~1880 – 1850Ma).

Undeformed fluvial sediments and intraformational volcanics of the Kombolgie Subgroup (~1822 – 1720Ma) unconformably overlie the basement rocks and represent the basal portion of the McArthur Basin. The platform sediment thickness is poorly known, but progressively thickens to the southeast, probably reaching depths in excess of 1000 metres in the southeast of the project area.

2.2 Project Geology

The tenements lie on the Arnhem Land Plateau which forms the western margin of the Palaeoproterozoic McArthur Basin and comprises undeformed sediments of the Katherine River Group. The lower part of this sequence was previously known as the Kombolgie Sandstone and has been renamed the Kombolgie Subgroup. This subgroup has been further subdivided into three main sandstone units, the lowermost Mamadawerre Sandstone, the middle Gumarrirnbang Sandstone and the upper Marlgowa Sandstone. The sandstone sequences are separated by thin basaltic/volcanic horizons with the lower Nungbalgarri Volcanics and the upper Gilruth Volcanic Member.

The Gumarrirnbang Sandstone consists of a fine to very coarse grained, medium to thickly bedded quartz arenite. Deposition of the Gumarrirnbang Sandstone is interpreted to have been in a braided fluvial system with an overall upwards fining and better-sorting of the sands within the upper portions of the formation.

The Gilruth Volcanic Member is a thin mafic volcanic horizon which conformably overlies the Gumarrirnbang Sandstone. The Gilruth Volcanics are generally recessive in outcrop, forming lateritised terraces of ferruginous debris. Also present in the stratigraphy is the Oenpelli Dolerite which may be the feeder dykes to the Nungbalgarri or Gilruth Volcanics units.

Conformably overlying the Gilruth Volcanics is the outcropping Marlgowa Sandstone, a fine grained to granular, thickly bedded quartz arenite deposited in a braided fluvial to shallow marine, tidal environment.



3. WORK COMPLETED DURING THE REPORTING PERIOD

The following work was undertaken through the first year of exploration:

- Compilation of data dating back to the first known exploration of the area in the 1960's
- Analysis of historical geochemistry data as part of a Master's Degree undertaken by Helen Wood of the University of Queensland
- Interpretation of structural data by Dr Gideon Rosenbaum of the University of Queensland
- Collation and interpretation of Landsat and ASTER data
- An airborne geophysical survey over part of EL24713
- Interpretation and processing of geophysical data

3.1 PREVIOUS EXPLORATION COMPILATION

A collation of data from previous exploration conducted in the Headwaters region concluded that previous exploration in the area has been conducted since 1969 with very little success. Normanby Exploration focussed on commodities such as diamonds, zinc, lead, copper, and silver with no significant results.

Cameco Australia held the Headwaters (formerly Deaf Adder) tenements (as EL5061 and EL5062) until relinquishment in 2002. Cameco searched for uranium deposits similar to those found in the Athabasca Basin in Saskatchewan, Canada and the Alligator Rivers Region in the Northern Territory. Their 1997 exploration program consisted of an airborne magnetic spectrometric survey, radiometric prospecting, PIMA analysis of sandstone samples and litho-geochemical studies.

Several areas of interest were found and were followed up with diamond drilling the following year, and airborne geophysics and air photography were undertaken to aid in geological mapping in 1998. Figure 3 shows the prospects and areas of anomalism located by Cameco during their tenure. Cameco (Drever et al., 1999) noted that in most of the 1998 drill holes, radioactivity and alteration occurred at the contacts between the Gilruth and Nungbalgarri Volcanic members and the Kombolgie Sandstone.

In 1999, exploration consisted of a gravity survey, sampling of anomalous areas and further diamond drilling in the southern Spectre prospect. Drilling results showed elevated uranium located at contacts between the Kombolgie Sandstone and the volcanic units. In 2000 an Airborne Multispectral Scanner (AMS) survey was conducted and diamond drilling continued. In 2001, sampling of fracture, quartz vein, breccia and follow-up of anomalous zones was undertaken.

In chasing unconformity-related uranium mineralisation as seen at nearby deposits such as Ranger, Jabiluka and Nabarlek, Cameco determined the depth to unconformity prohibitive and the licences were surrendered in June 2002.

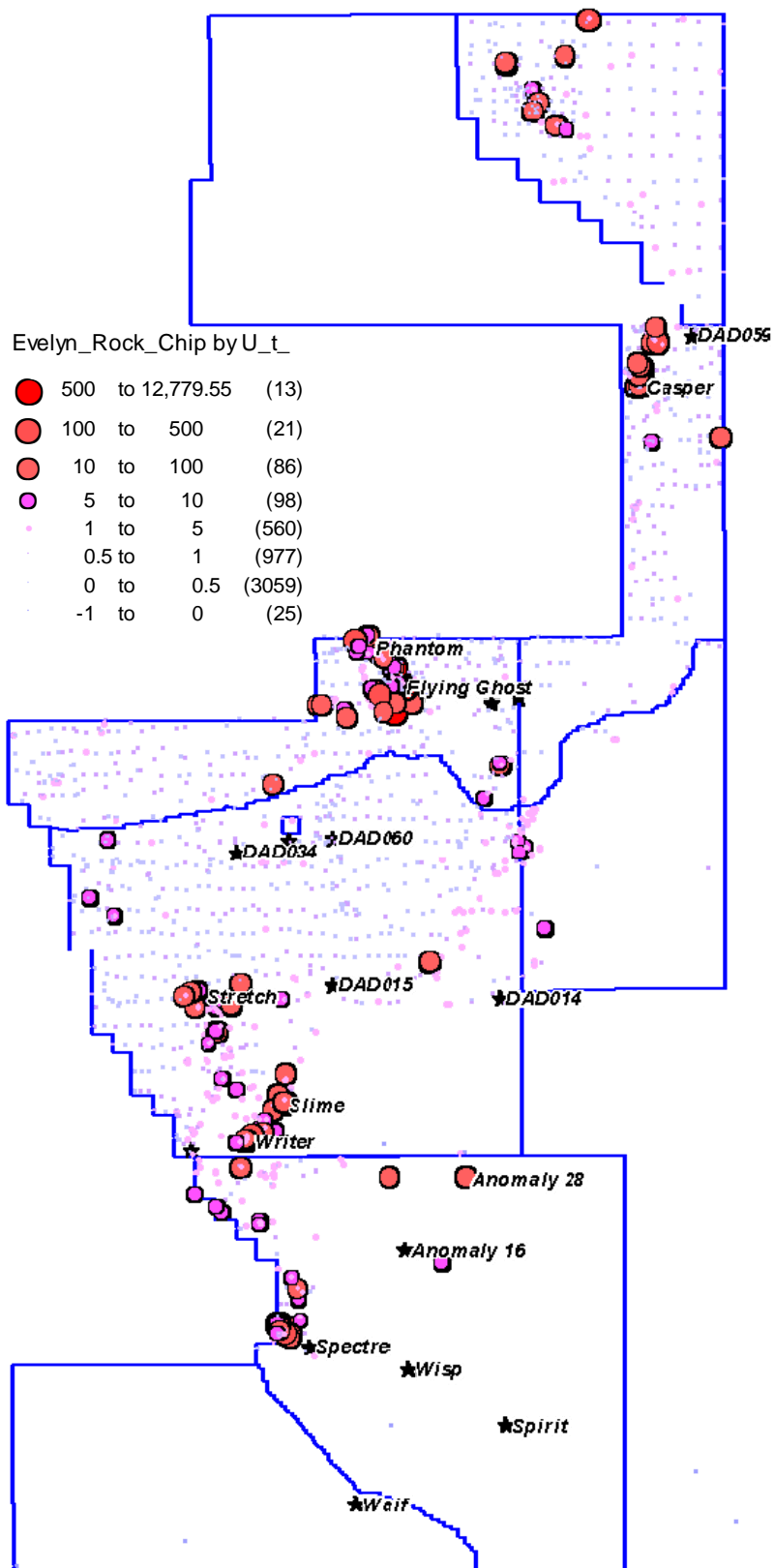


Figure 3: Uranium anomalies within Headwaters (Deaf Adder) region



3.2 GEOCHEMISTRY ANALYSIS

Historical geochemistry data was compiled and evaluated as part of a Master's thesis produced by University of Queensland student Helen Wood. The geochemistry was investigated and compared with aspects of mineralisation from different uranium deposit types. Data from transects of four known mineralisation zones in the area was also examined to establish geochemical/structural relationships. The full thesis report by Helen Wood is included as Appendix I.

3.3 STRUCTURAL INTERPRETATION

The aim of the study was to provide a synthesis of the structural architecture and tectonic history of the Headwaters project area. The report summarises results of a preliminary desktop study, focusing on the relative timing of faulting and the potential structural control on uranium mineralisation.

Based on the interpretation of aerial images, four major orientations of lineaments and two major generations of deformation were recognised. Strong positive magnetic anomalies along NW- and NE-trending lineaments were also noted, suggesting that these structures may have provided pathways for dykes.

The full report by Dr Gideon Rosenbaum of the University of Queensland is included as Appendix II.

3.4 LANDSAT ETM+7 AND ASTER DATA INTERPRETATION

A regional remote sensing study was undertaken. Remote sensing consultants Earthscan were commissioned to review Landsat and ASTER images from West Arnhem Land to assist in prioritising targets.

Earthscan processed and mosaiced the ASTER and Landsat datasets and undertook interpretation of the data. Coverage areas of the study are shown in Figures 4 and Figure 5. The final report and data are attached as Appendix III.

The total study area covered over 47000km² and overlaps eight 1:250000 map sheets. The Headwaters Region is spread over the Alligator River (SD53-01), Milingimbi (SD53-02), Mount Evelyn (SD53-05) and Mount Marumba (SD53-06) map sheets.

Three Landsat ETM+7 satellite scenes were used to provide a regional assessment of outcrop geology. The data was corrected to a rectified GDA94, MGA53 map grid. To create maximum contrast in the images for structural and outcrop interpretation, all multispectral bands of data were edge enhanced.

Interpretation of the Landsat ETM+7 data highlighted three major structural domains in the area with the central domain showing a complex structural history and the most potential for exploration. Major northwest linear zones which have been reactivated form structural corridors containing multiple N-S curvilinear and splay faults which controlled intrusive activity.

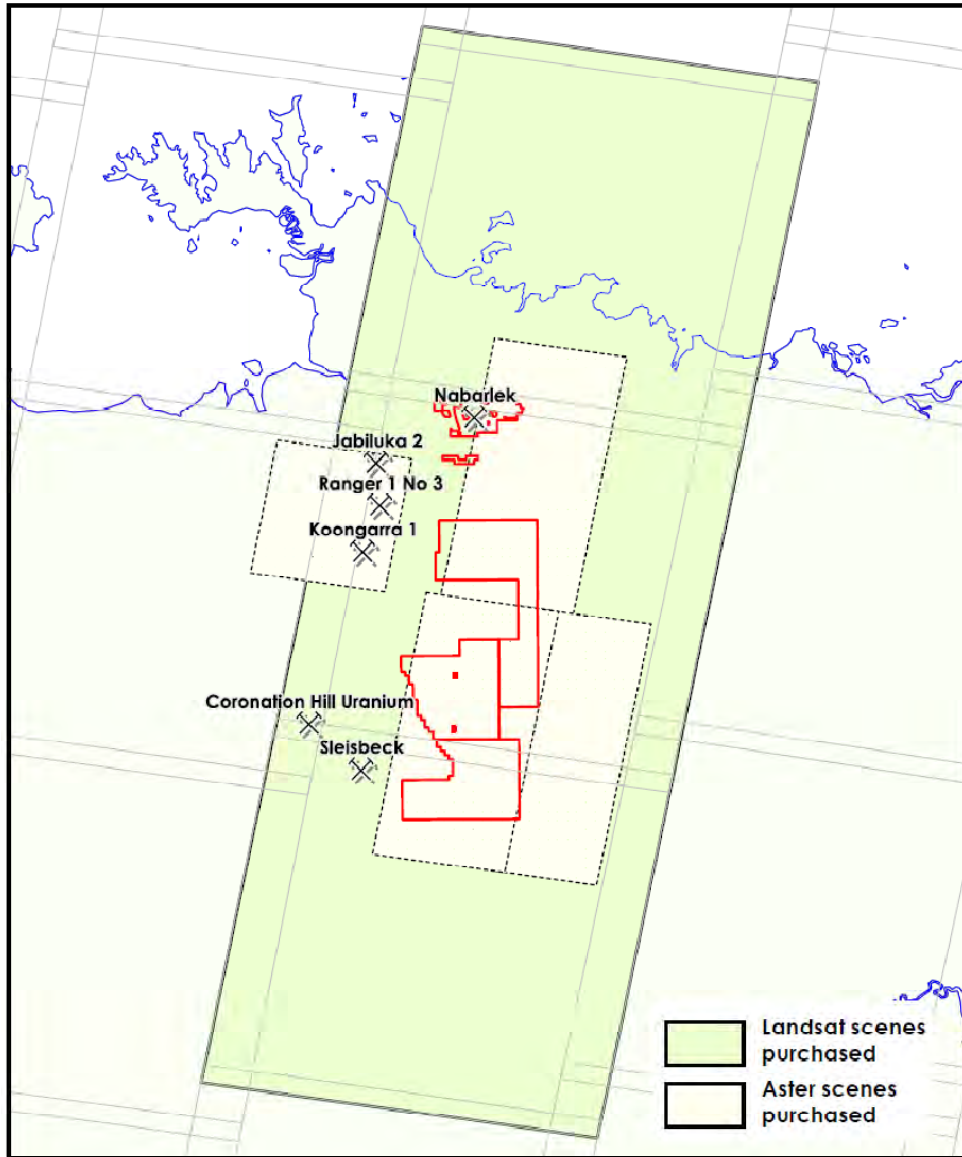


Figure 4: Map of Landsat and ASTER coverage

Seven daytime ASTER scenes were processed involving orthorectification using Landsat ETM+7 Pan Scenes for XY control and SRTM 90m DEM for Z control (Figure 5). Spectral processing was used to highlight epithermal minerals, silica and iron oxide, and propylitic alteration, all of which are of exploration interest. The Landsat ETM+7 data was also used to map mineral alteration zones for FeOH species, silica, and smectite group minerals.

A total of 105 areas of interest from Landsat interpretation and 57 areas of interest from ASTER interpretation were recorded (Figure 6). Correlation of significant structural and alteration zones was evaluated.

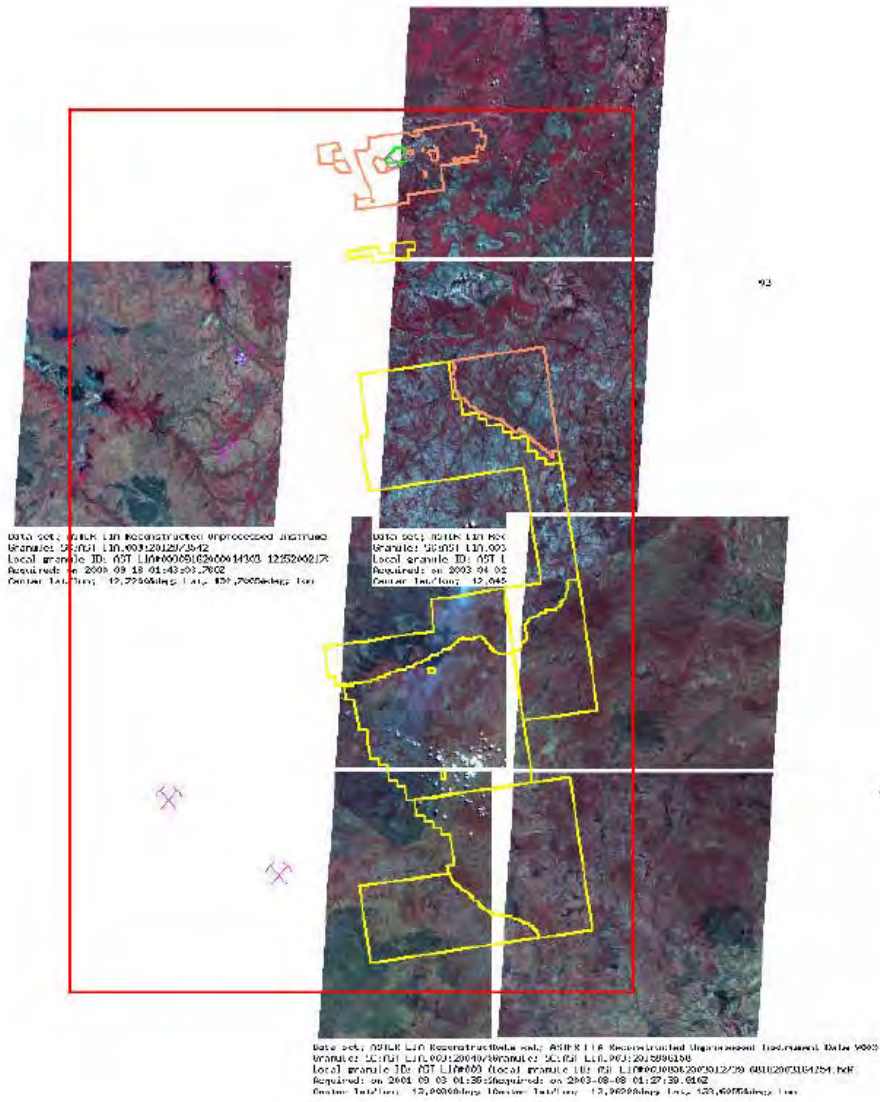
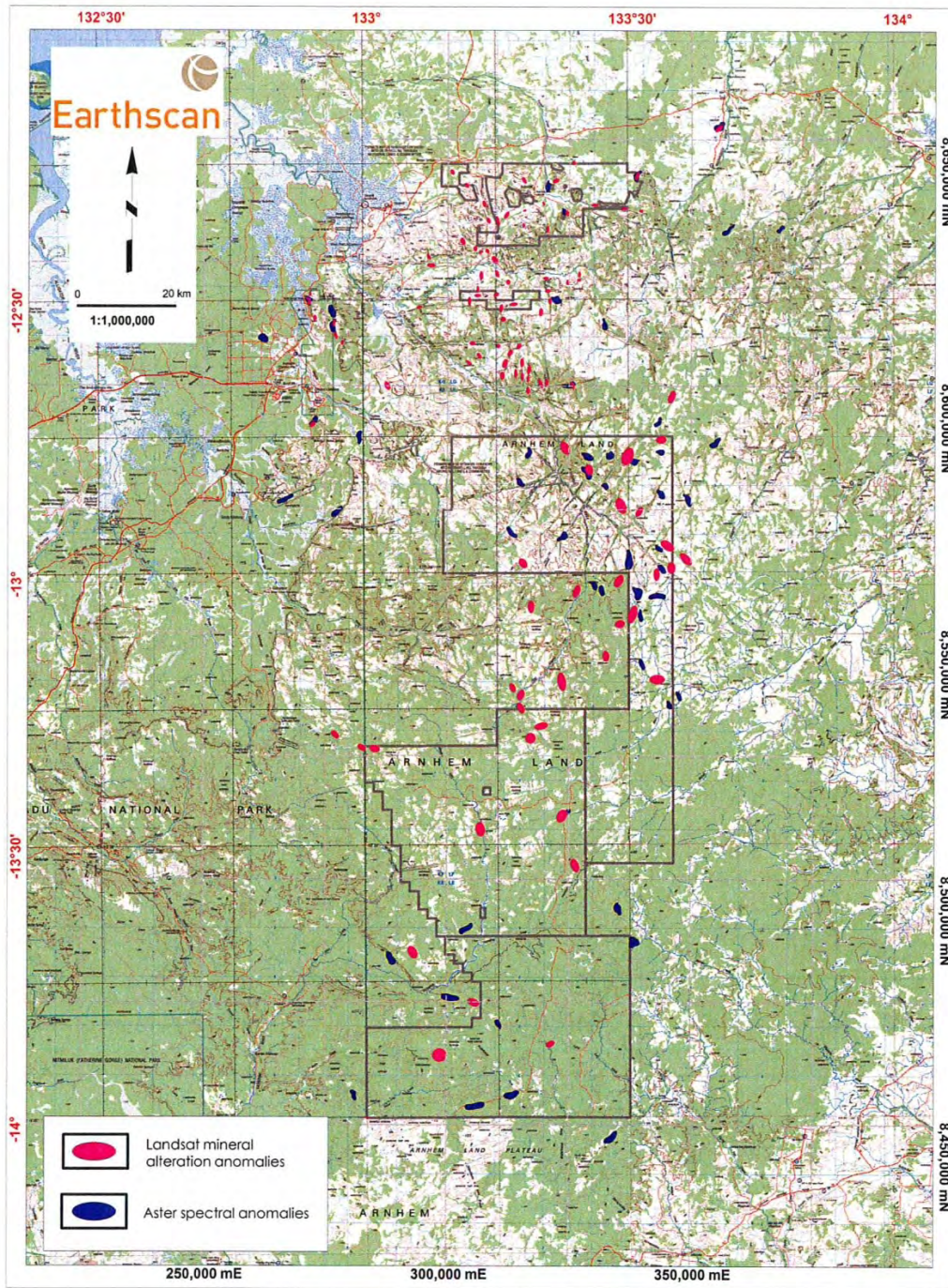


Figure 5: Map of ASTER Scenes. Yellow outlines the Headwaters Region. Red outlines the Landsat data coverage



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 ASTER & LANDSAT SATELLITE DATA over PUBLISHED TOPOGRAPHIC MAPPING
 MINERAL ALTERATION & SPECTRAL ANOMALIES

Figure 6: ASTER and Landsat Data Mineral Alteration and Spectral Anomalies



3.5 AIRBORNE GEOPHYSICAL SURVEY

Following a review of historical geophysical surveys from the Headwaters Project area, a detailed airborne magnetic-radiometric survey was commissioned in the south-eastern corner of the Project area to provide detailed data.

Thomson Aviation was contracted to undertake the airborne magnetic-radiometric survey utilising an Air Tractor 502B – Data Boss aircraft based out of Pine Creek. The survey was flown in late August with 8298.6 line km completed at 100m flight line spacing (Table 2).

Flight line direction	90-270
Flight line spacing	100m
Tie line direction	0-180
Tie line spacing	1000m
Sensor mean terrain clearance	40m
Time base- magnetic	0.05 sec (<3m)
Time base- Radiometrics	0.5 sec
Total line kilometres	8298.6km

Table 2: Flight Specifications. Thomson Aviation Logistics Report

Four Radiation Solutions Inc RSX-4 Gamma detector packs were fitted to the aircraft providing high resolution spectral information. The Gamma Ray Spectrometer was interfaced to a NaI(Tl) crystal detector pack with a total volume of 66 litres (4096 cubic inches). Enhancement of the spectrometer data was achieved by noise reduction techniques (NASVD) followed by dead time correction, energy calibration, cosmic/aircraft background correction and atmospheric radon removal all applied to the 256 channel data.

The survey was flown over an area of EL24713 (Figure 7). The data and reports are attached as Appendix IV. In-house processing of the data is ongoing.

The data was also forwarded to consultant geophysicist Jim Hanneson for review and stitching into the established regional geophysical dataset. A draft of his report is attached as Appendix V. Additional processing is required in 2011.

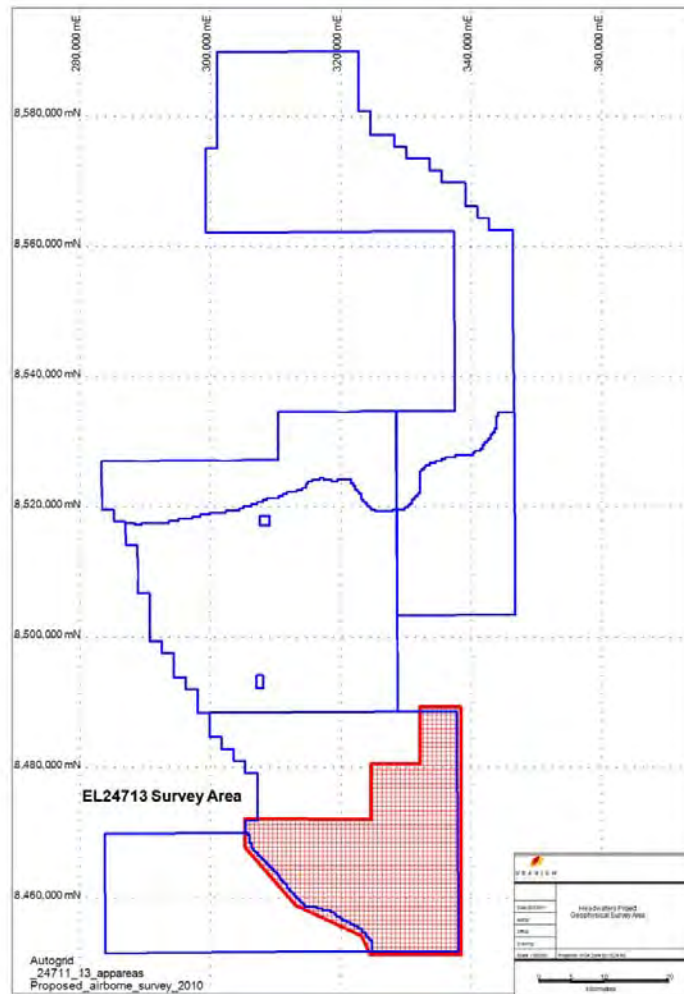


Figure 7: Geophysical Survey Area

4. FURTHER WORK

Additional data processing and geological mapping will continue through 2011. Potential RC drilling in the southern tenements will be accessed from established access tracks into the area. It is proposed that the track initially constructed to Cameco’s Mann River Camp be re-established for the field season to assist with access into the southern tenements.

If a drilling program is undertaken on EL24713 then a small fly camp will be set up in an area central to the drilling. The exact location will be selected in consultation with local traditional owners.

5. REFERENCES

Drever, G., Beckett, G., Otto, G., Rosewall, D. and Mackie, A., 1999. Exploration Licences EL 5061 & EL 5062, Deaf Adder Project - Northern Territory, Annual report for period 27th May 1998 to 26th May 1999. Cameco Australia Pty Ltd.