Titleholder: Lagoon Creek Resources Pty Ltd

Operator: Predictive Discovery Limited

Titles/Tenements: EL 24645

Annual Report for the year ending 16 March 2011

Tenement Manager/Agent: AMETS

Corporate author: Predictive Discovery Limited

Target Commodities: uranium and gold

Date of report: 20 May 2011

Datum/Zone: GDA94/Zone 53

250 000 Map sheet: Calvert Hills

100 000 Map sheets: Coanjula, Nicholson River

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Summary

Predictive Discovery Limited (**PD**) is exploring EL 24645 for uranium and gold mineralisation based on strong similarities in the geological setting there with that of the large Westmorland uranium field in Queensland.

PD signed a farm-in agreement with Lagoon Creek Resources Pty Ltd in June 2010, under which it is entitled to the right to earn a 51% interest in the EL by expenditure of $2 million.

Exploration during the 12 months to March 2011 has consisted of geophysical data analysis, gravity surveys and geological mapping.

Following analysis and interpretation of this year's results, drill target areas have been established for a planned RC and diamond drilling program scheduled for July 2011. The planned exploration is expected to cost approximately $380,000.

Location and Access

EL24645 consists of 136 sub blocks and was acquired by Lagoon Creek Resources Pty Ltd on the 15th March 2006, for a period of 6 years. The EL covers 445 sq. km and is located within Benmara Pastoral station, south of the Calvert Road.

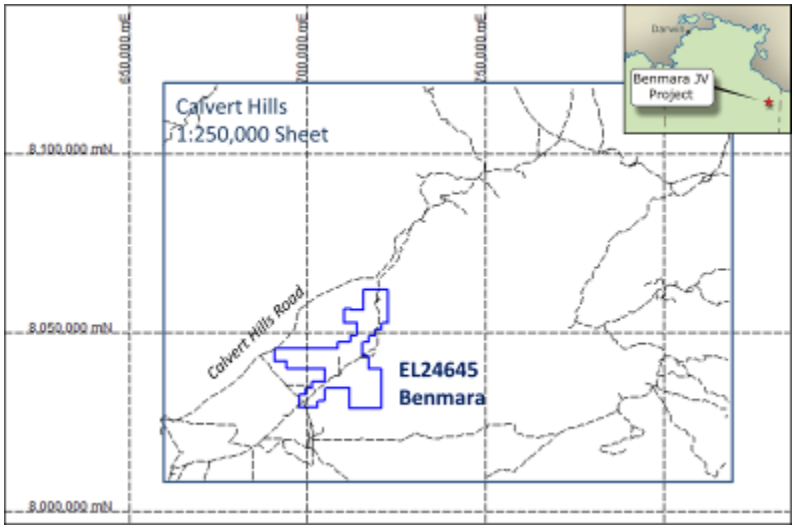

Figure 1: EL24645 - Locality Plan. Coordinates are for AMG Zone 53, datum GDA94.

The climate is sub tropical, with wet summers and warm dry winters. Heavy rainfall during the summer months can cause substantial access problems, with vehicular access into the principal areas of interest is effectively impossible between December and March and sometimes for several months either before or after that period.

Geological Setting

The Benmara area is underlain by rocks of the McArthur Basin resting unconformably on granites and metamorphic rocks of the Murphy Inlier.

Within EL24645, much of the Proterozoic stratigraphy is overlain by Cretaceous and Cambrian fluvial sediments, respectively the Bukalara Sandstone and Mullaman Beds. Murphy Inlier rocks crop out in the southern half of the EL, where they are known to contain anomalous uranium values and uranium mineralisation including Anomaly 1 (Lally and Bajwah, 2006).

The local geology is illustrated in Figure 2.

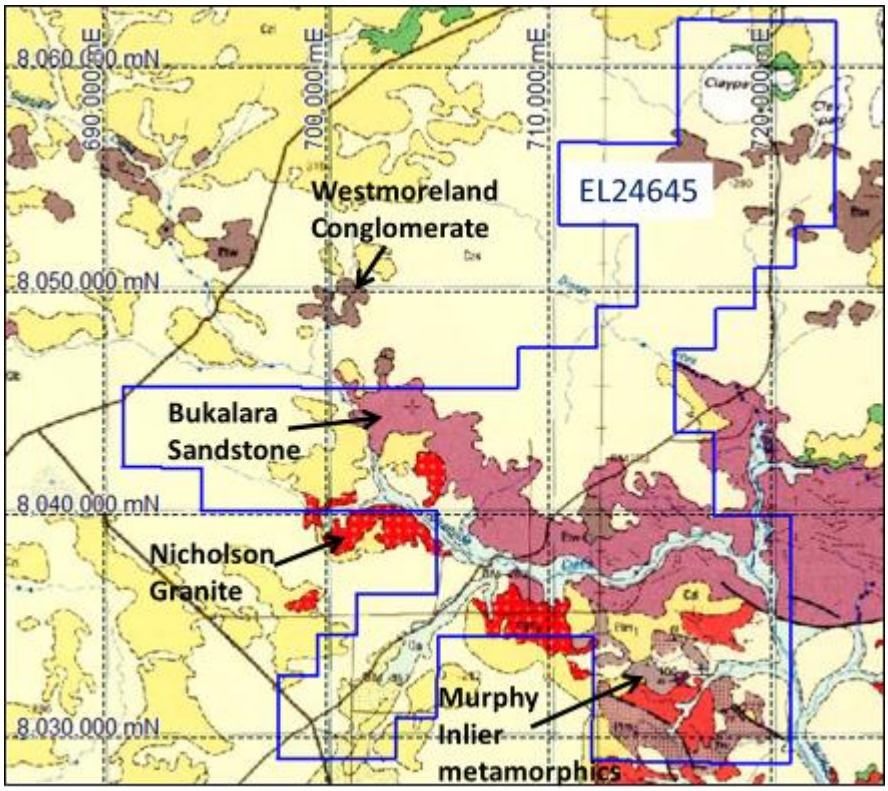

Figure 2: Geology of EL24645 from the Calvert Hills 1:250,000 Geological Map (Ahmad and Wygralak, 1989). Coordinates are for AMG Zone 53, datum GDA94.

Mapped faults in the Murphy Inlier generally strike west to north-west (Figure 2), however the majority of the McArthur Basin sediments are concealed under cover and therefore structure in those rocks can only be inferred from regional geophysical data. Figures 3a and 3b shows a first vertical derivative image of regional magnetic data indicating the location of some of the major geological features inferred to be present under Cambrian and more recent sedimentary cover. In particular:

1. The Westmoreland Conglomerate outcrops in the northern part of the EL and has a demonstrably subdued magnetic character.
2. The Siegal Volcanics do not outcrop in the immediate area, however are inferred underneath Cambrian and Recent cover on the basis of a characteristically rugged character in first vertical derivative magnetics which

can be observed in areas where they do outcrop and their stratigraphic relationship with the Westmoreland Conglomerate, which does outcrop in the area.

3. A large, north-east trending mafic dyke (most probably a dolerite) is inferred to cross the Westmoreland Conglomerate in the south-central portion of the EL.
4. Faults generally exhibit west-north-west and north-west strikes with the latter offsetting the former. The north-west trending faults are marked by zones of subdued magnetic signature, suggesting that strongly oxidized fluids have converted magnetite to hematite within the Siegal Volcanics. Such fluids may have also carried uranium and have deposited it in contact with more reduced rocks bearing Fe^{2+} minerals such as the Siegal Volcanics and the inferred dolerite dyke.

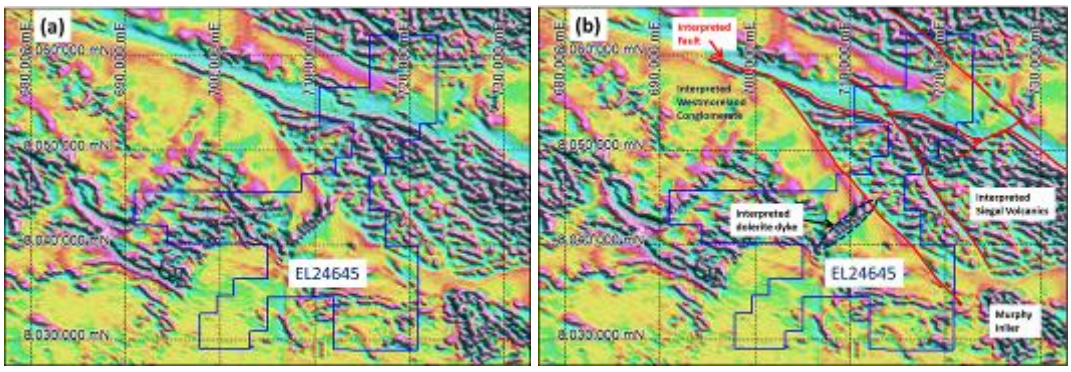

Figure 3a and 3b: First vertical derivative regional magnetic data of the Benmara area. Inferred geological features largely concealed under post-mineral cover are annotated in Figure 3b. Coordinates are for AMG Zone 53, datum GDA94.

Previous Exploration

Historic Exploration

The following description of historic exploration was written by Lagoon Creek Resources Pty Ltd (**LCR**) and presented in previous annual reports for this Exploration Licence:

> "Historic exploration has been firmly focused on diamond and base metal work despite its proximity and geological similarity to good uranium deposits. Initial uranium exploration was documented in 1953 however little work has been undertaken since the late 50's, early 60's. Stockdale prospecting, BHP, Rio and Ashton mining carried out the majority of exploration within the area post 1980's.
>
> *"Uranium exploration over the Project area has been minimal. Major exploration or mining company work activity during the early to mid 1970s included airborne and ground magnetic/radiometric surveys, water bore and rock sampling with only 50m of diamond drilling. Minor uranium occurrences were located at anomalies 1 and 7B. The latter anomaly was*

related to supergene-lateritic enrichment over trachytic volcanics of the Benmara Group.

The masking effect of widespread, basement-derived, anomalously radioactive, alluvial cover, has largely limited further uranium exploration in this area. Subsequently, exploration has been focused on the diamond potential of the district." (Teluk, A. 2007. Independent Geological Report on Portfolio of Uranium Projects)"

In addition, LCR compiled the following list of open file reports documenting earlier exploration of the area:

CR 1979/0009 Mines Administration. Final Report on 1978 Field season, EL 1235
CR 1980/0143 Mines Administration. Final Report (1980), EL 1235
CR 1980/0194 AFMECO. Annual Report, ELs 2111, 2136-2137
CR 1981/0123 AFMECO. Annual Report, ELs 2111, 2136-2137
CR 1985/0149 Stockdale Prospecting. Final report to 1985, ELs 4475-4477, 4480, 4482, 4484-4489
CR 1985/0279 Stockdale Prospecting. Annual report, EL 4438
CR 1990/0060 Stockdale Prospecting. Common Report to 31/01/90, ELs 6286-6301
CR 1990/0633 Carpentaria Exploration Company. 1st Annual Report, EL 6560
CR 1991/0213 Stockdale Prospecting. Common Report to 31/01/91, ELs 6286-6301
CR 1991/0554 Nicron resources. 3rd and Final Report, 1988-1991, EL 6318
CR 1991/0565 Carpentaria Gold. Technical Report, 08/91, EL 5346
CR 1992/0178 Stockdale Prospecting. Partial relinquishment Report, ELs 6288-6289, 6292-6293, 6296-6298
CR 1992/0179 Stockdale Prospecting. Common Report 31/1/92 ELs 6287-6293, 6296-6299
CR 1993/0083 Roebuck Resources N.L, Report to support exploration retention licence, ERL(A) 129
CR 1993/0131 Stockdale Prospecting. Annual Report, ELs 6287 and 6288
CR 1993/0224 Poseidon Exploration. Partial Relinquishment Report (1988-1992) EL 6289
CR 1993/0306 Stockdale Prospecting. Partial Relinquishment Report 04/93 ELs 6287 and 6288
CR 1994/0094 Poseidon Exploration. Final Report 1988-1993. EL 6289
CR 1994/0116 Poseidon Exploration. Annual Report ELs 6287-6288
CR 1994/0167 Normandy Exploration. Partial Relinquishment Report 30/11/93. ELs 6287-6288
CR 1995/0183 Normandy Exploration. Final Report 1988-1994, ELs 6287-6288
CR 1996/0241 CRA Exploration. 1st and Final Report ELs 8938,8940,8942-8944
CR 1998/0098 BHP Minerals. Annual Report, EL9660
CR 1998/0506 BHP Minerals. Final Report, EL9660
CR 2000/0328 Ashton Mining. Annual Report, EL 6566

Lagoon Creek Resources Pty Ltd

Lagoon Creek Resources' exploration consisted of the following components:

- Re-processing of aeromagnetic and radiometric data;
- A geological evaluation of the area by Alex Teluk from Rob Search;
- A high resolution aerial magnetic and radiometric survey; and
- Geological mapping, stream sediment, soil and rock chip sampling and scintillometer surveys. These were all focused on the Murphy Inlier rocks which outcrop more within the EL than the overlying McArthur Group sediments and volcanics.

2010-11 Exploration Program

Work completed in 2010-11 was focused on obtaining the required information in order to plan drilling for concealed Westmoreland-style targets beneath Cambrian and Recent cover in the northern half of the EL. The work consisted of the following:

- Target identification based on processed aeromagnetics;
- Reconnaissance geological mapping of the EL focused on the following questions:
    - What is the likely variability in the depth to the base of the Bukalara Sandstone (Cambrian cover sequence) based on mapping dip variability and fold frequencies?
    - Can reduced (graphitic) units be identified in the Murphy Inlier metamorphics which might have been a locus for "classic" unconformity-style uranium mineralisation?
    - What does the Westmoreland Conglomerate look like in the northern part of the EL and is it certain that all the mapped outcrops are indeed Westmoreland Conglomerate? This question was prompted by the fact that a Westmoreland Conglomerate outcrop in the centre of the EL overlies probable Siegal Volcanics (interpreted from magnetic data), which suggests that it is actually Bukalara Sandstone.
    - What does the uranium mineralisation at Anomaly 1 look like?
- Ground gravity surveys on two selected target areas. These were designed to provide another potential field data set to complement the existing high resolution aeromagnetic data in order to enable construction of representative 3D models of the geology in the target areas. Examination of this data by PD's geophysical consultant, Bob Smith, has indicated that magnetic remanent effects are strong. Also, as mentioned previously, there is evidence for magnetite destruction by strongly oxidising fluids. The purpose of the survey was therefore to use a different method to help interpret the location of high density dolerite and/or Siegal Volcanics and determine the shape of their contacts.

The geological mapping was conducted by Mark Winterbotham of Satellite Mapping, a Cairns-based consultancy, and the ground gravity survey by Haines Surveys Pty Ltd, based in South Australia.

The Satellite mapping and Haines Survey work is documented in Appendices 1 and 3 respectively. The located gravity data is listed as Appendix 4 and has been provided separately in ASCII format.

2010-11 Exploration Results

Target identification

According to the ore formation model which PD is following in its exploration at Benmara (e.g. Wall, 2006), the best targets are those in which reduced iron-bearing lithologies (i.e. those containing Fe^{2+} minerals) are likely to have been in contact with uranium-bearing oxidized fluids which circulated either through the Westmoreland Conglomerate or along permeable structures. The primary target is Westmoreland-style (that is mineralisation formed in the Westmoreland Conglomerate in close proximity to contacts with either the Siegal Volcanics or dolerite dykes). Potential also exists for "classic" unconformity-style uranium mineralisation along the Westmoreland Conglomerate-Murphy Inlier contact.

In EL24645, analysis of the aeromagnetic data including interpretation of the likely subsurface geology has highlighted four important target areas, one of which appears to be very similar in setting to the major Redtree uranium deposit at Westmoreland (Figure 4) i.e. a north-east trending interpreted dolerite dyke in contact with the (presumably) shallow dipping lower contact of the Siegal Volcanics.

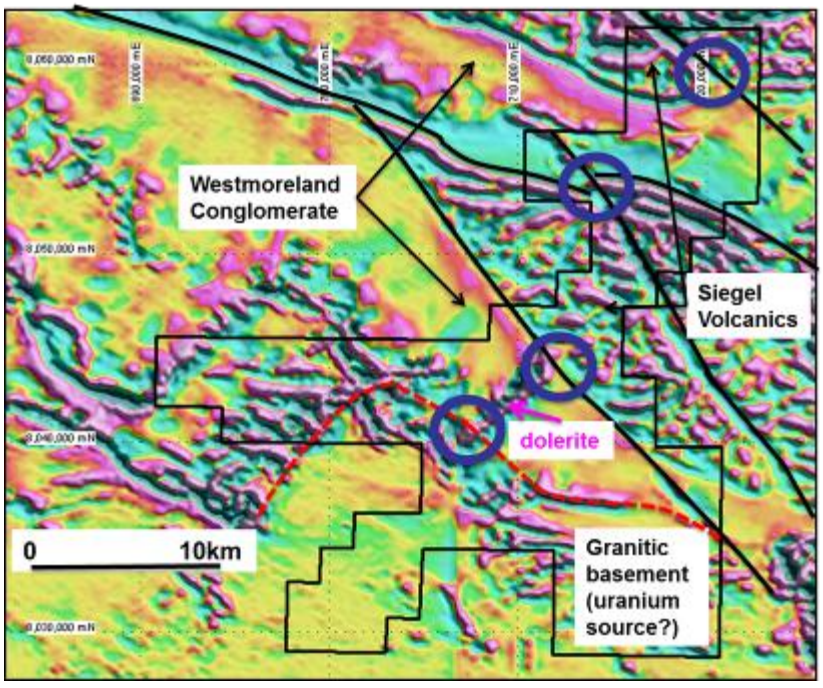

Figure 4: Exploration target location superimposed on a map of first vertical derivative processed magnetic data. Coordinates are for AMG Zone 53, datum GDA94. The target which most resembles the Redtree ore position is at the north-east end of the inferred dolerite in the centre of the EL.

Reconnaissance geological mapping

The major conclusions of this work were that:

1. **Bukalara Sandstone thickness**

   The geological mapping confirmed that folding in the Bukalara Sandstone is open and shallow. While there is insufficient outcrop to effectively map the fold train and therefore draw north-south cross sections through the area of concealed Siegal Volcanics, this information when combined with ongoing magnetic inversion studies based on the aeromagnetic data indicate that the base of the Bukalara Sandstone is unlikely to exceed 200 metres through most of the area.

2. **Basement graphitic zones**

   While insufficient mapping was done to answer this question, neither PD's work nor previous mapping has identified graphitic zones in the Murphy Inlier at the unconformable contact with the Westmoreland Conglomerate. Post-mineral cover is extensive, so such zones might exist, however they will only be identified by electrical geophysical surveys.

3. **Westmoreland Conglomerate**

   The mapping confirmed that the majority of mapped Westmoreland Conglomerate is indeed that lithology. Nevertheless, it also showed that oxidised sandy sections of the Westmoreland Conglomerate could potentially be confused with the Bukalara Sandstone.

The contract geologist, Mark Winterbotham, also carried out interpretation of satellite data and prepared an interpretative geological map, which has been provided separately.

Gravity survey

A total of 807 stations were collected in two areas, designated Block 5A (over the Redtree-like target in Figure 4) and Block 7 (the next exploration target to the north). The survey was carried out in October 2010. The survey results are described in Appendix 2 and provided in ASCII format in Appendix 3. Station locations are provided in Figure 5 and contoured Bouguer anomaly results can be seen in Figures 6 and 7.

The gravity survey produced results that were broadly similar with the magnetics, suggesting that a large dense mass of oxidised dolerite or mafic volcanics is not likely to be present - contrary to the earlier expectations. There is a small residual gravity anomaly on Block 5A, however, that appears to reflect a separate body from the magnetic source (Bob Smith, pers. comm.) and which will be the subject of detailed analysis during 2011.

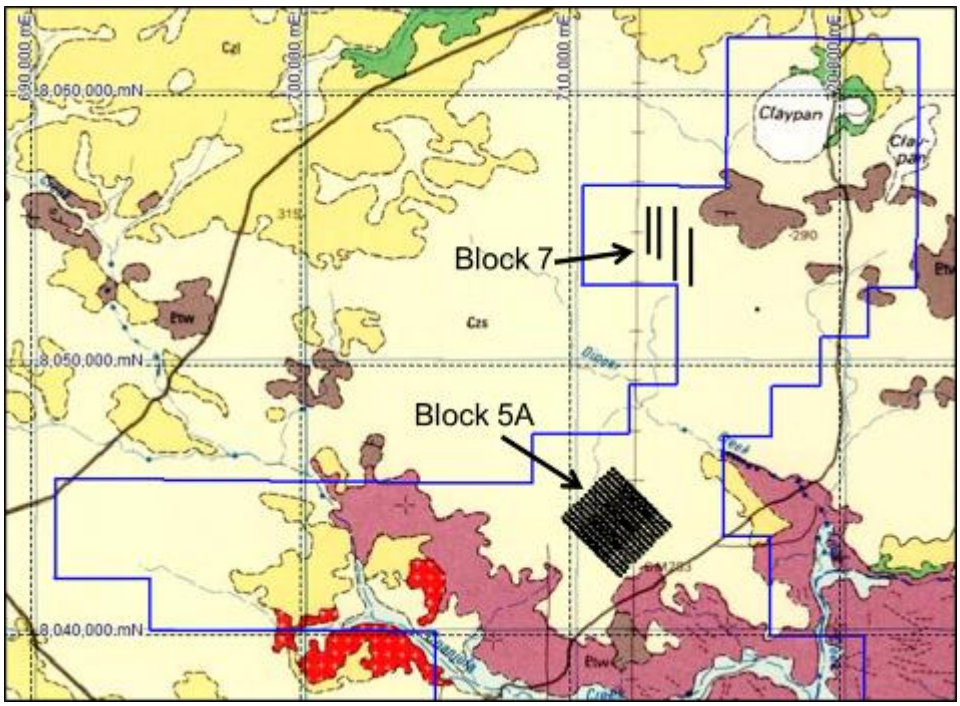

Figure 5: Location of ground gravity stations. Coordinates are for AMG Zone 53, datum GDA94.

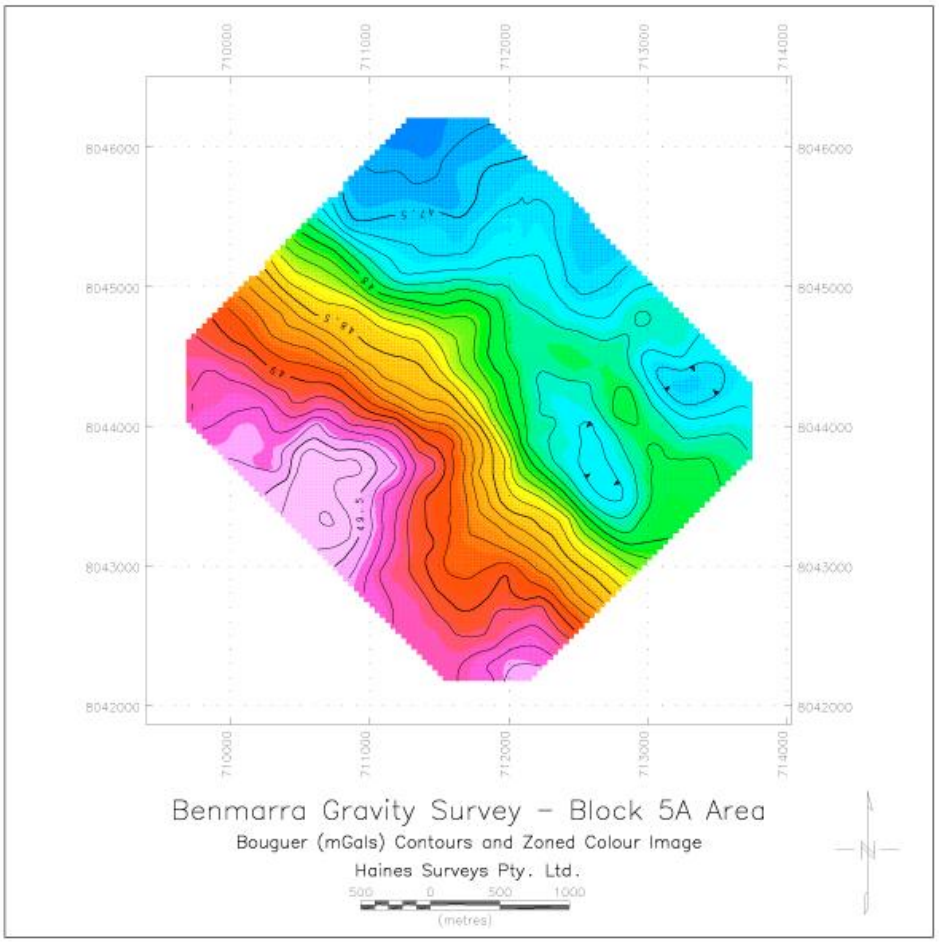

Figure 6: Contoured Bouguer gravity anomalies – Block 5A (from Haines Surveys report, see also Appendix 3)

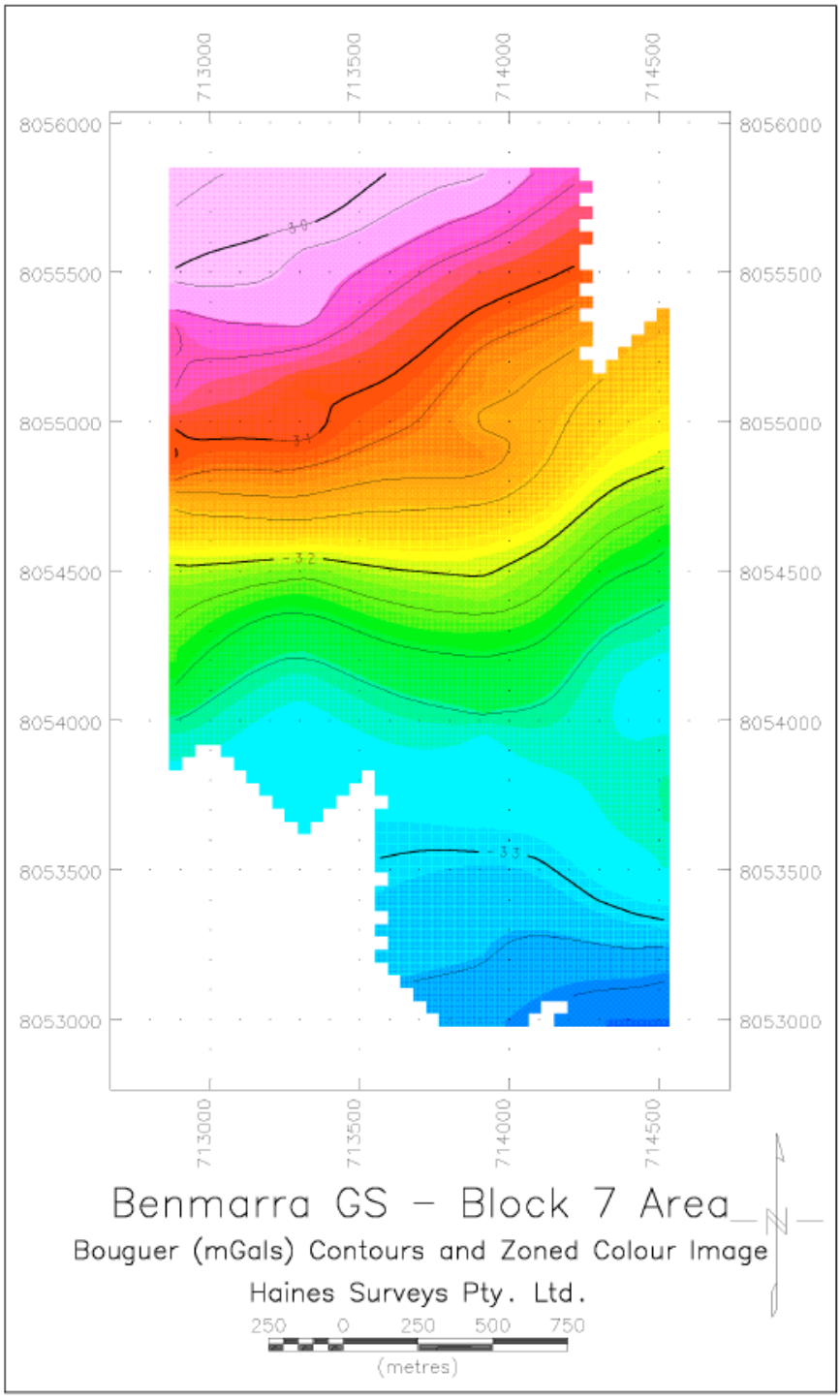

Figure 7: Contoured Bouguer gravity anomalies - Block 7 (from Haines Surveys report, see also Appendix 3)

2010-11 Exploration Expenditure

Exclusive of tenement rentals and tenement management fees, expenditure on the EL during the year has been $92,826, broken up as follows:

Cost category	Amount ($)
Personnel (staff and consultants)	21,689
Travel and accommodation	3,335
Geophysics consultants (Smith)	5,267
Geophysics contractors (Haines)	37,802
Exploration equipment and consumables	3,009
Data management services	1,726
Ausmodel licence fee allocation	20,000
TOTAL:	**92,826**

The Ausmodel licence fee refers to the licence fee payable to Ausmodel Pty Ltd, which holds certain intellectual property developed during the life of the Predictive Mineral Discovery Cooperative Research Centre. This fee is payable each year in advance. Application of this intellectual property (numerical modeling codes and knowhow) to exploration of EL24645 will take place next year (see next section).

2011-12 Planned Work Program

The planned work program in 2011-12 is as follows:

1. **Geophysical inversions**. Inversion of both the magnetic and gravity data which commenced in March 2011 will be completed in order to determine the most likely shapes of the target mafic intrusive and or Siegal Volcanic contacts;

2. **Application of Predictore^{TM}.** Numerical modeling of possible ore formation on the contacts with the target mafic intrusive and or Siegal Volcanic contacts will be carried out. This will be used to identify the highest probability drill targets for the discovery of Westmoreland style uranium mineralisation.

3. **AAPA Survey.** An AAPA survey has been organized for the month of June in order to identify any sacred sites in the areas where drilling is planned.

4. **Drilling.** A minimum of 1,000m of combined RC and diamond drilling will be carried out on testing drill targets at Block 5A and possibly Block 7. This will consist of RC pre-collars and diamond drill tails.

5. **Reporting.** Results of all of the above work will be compiled into a comprehensive report.

The above program is expected to cost approximately $384,000, broken down as follows:

Cost category	**$**
Personnel (staff and geological consultants)	77,600
Travel and accommodation	12,000
Vehicles	8,000
Direct drilling charges	160,000
Site preparation	16,000
Geophysical processing and interpretation	15,000
Geochemical analysis	10,000
Consumables	5,000
Ausmodel	40,000
Community relations/AAPA survey	40,000
TOTAL:	**383,600**

References

Ahmad, M and Wygralak, A S, 1989: Geological map: 1: 250,000 Sheet (SE53-08 Calvert Hills)

Lally, J H and Bajwah, Z U, 2006: Uranium Deposits of the Northern Territory. ***Northern Territory Geological Survey, Report 20, 87p.***

Wall V J, 2006: Unconformity-related uranium systems: Downunder and over the top. ***ASEG Extended Abstracts 2006, 1–12.***

APPENDIX 1

PREDICTIVE DISCOVERY PTY LTD

BENMARA

Interpretive Geological Mapping Expedition

Produced by:

Satellite Mapping

PO Box 32
Machans Beach
CAIRNS QLD 4878

October, 2010

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TABLES

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FIGURES

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1 Introduction

Exploration tenements EL 24645 & 24666, subject to a JV with Lagoon Creek Resources have been examined by reconnaissance mapping of five selected areas hereafter referred to as A1 to A5. See Figure 1. These areas were selected by Paul Roberts of Predictive Discovery to assist in confirming the potential for unconformity style uranium mineralisation within the EL's.

Selected locations within these areas were visited principally to assess whether suitable stratigraphy exists in sufficient quantity and with structural/geochemical associations necessary for Westmoreland or Unconformity Style uranium mineralisation to have developed.

Preparatory satellite image processing and spectral mapping were carried out to provide more detailed geological variation than available from 1:250k scale mapping. SPOT ImageMap imagery was purchased to provide a high resolution base for orientation and field mapping. Airborne geophysics was examined and points of interest used to aid in site selection.

Previous exploration analysis is not covered in the scope of this report except for registered drillhole locations and JV partner exploration around Anomaly 1.

2 Location and Access

The tenements are situated In the Northern Territory on Benmara Station, a 400+ km^2 cattle property at the north eastern end of the Barkly Plateau. The property has been held by the Holt family for approximately seventeen years. Access to the homestead is provided from Calvert Road via formed gravel road that continues past Benmara eastwards to the Nicholson River and subsequently into Waanyi/Garrawa Aboriginal lands. The closest fuel and supplies are over 300km from Benmara.

Travel permits across Aboriginal Land from Doomadgee to Benmara were requested from the Northern Land Council in Katherine but were declined.

Access to areas of interest within the EL's is afforded by station tracks, fence lines and graded dirt roads. The quality of tracks varies considerably depending on maintenance cycles. Much of the area is only accessible by overland travel. Terrain conditions are often difficult with sometimes dense Grevillea and Acacia scrub predominating on sandy uplands. These small trees range in height between 0.5 and 2 metres and consist of thickets of previously burned lance-like blackened branches amidst bushy regrowth with stumpy termite mounds and occasional boulders. Though impenetrable to conventional 4WD vehicle, and a major obstacle to quad bikes, a suitably equipped motorcycle with handlebar protectors afforded access to all areas, albeit slowly. Open country with laterite upland plains verging on Eucalypt savannah with moderately dense Spinifex provide a welcome breath of air though these can also be treacherous with semi-concealed (un-treed) steeply incised shallow drainage channels and larger erosional gullies. Outcrop areas are almost invariably surrounded by boulder fields and Spinifex with hiking being the only transport option.

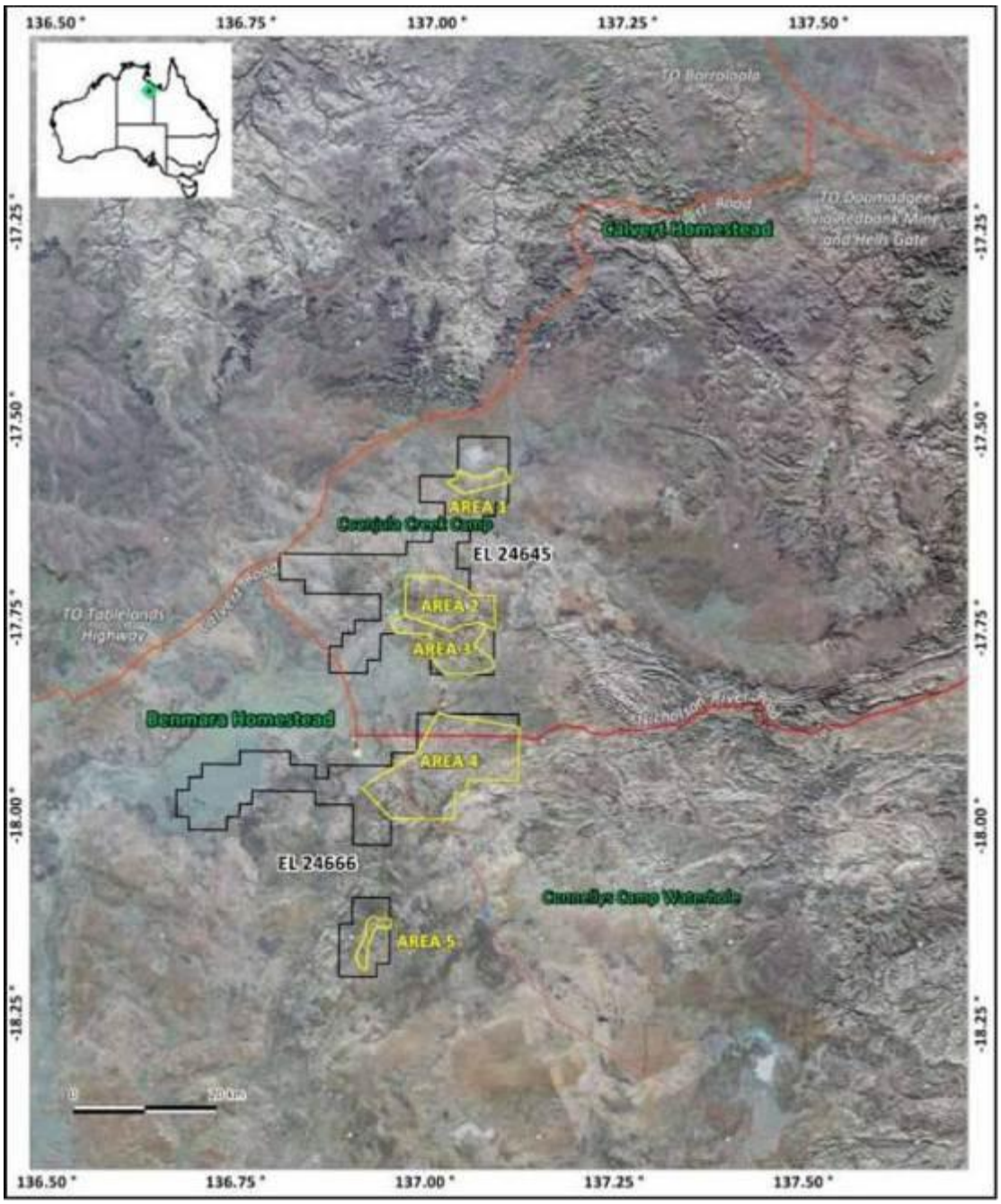


Figure 1 Regional Location Map

(Image Base Landsat 7 © Geoscience Australia)

3 Objectives

The main objective of this expedition has been to identify suitable locations with potential for unconformity related uranium deposition. Primarily these relate to graphitic or carbonaceous sediments, and mafic (Fe^{2+}) volcanics, especially dykes (reducing capability following oxidised fluid transport of uranium) within reasonable proximity of the Murphy Inlier and unconformable overlying Westmoreland Conglomerate (and other rocks of similar character and age in the south). Of equal importance is the detection of favourable associated structural positions (fluid

plumbing system), with faults crossing the unconformity from the basement (Murphy Inlier) being of most interest.

Additional objectives consist of measuring Bukalara Sandstone fold geometry and examining stratigraphic and lithological relations to the underlying Westmoreland Conglomerate and the mapped extents of the latter (Area 1 & 2). Area 3 contains a small uranium occurrence known as Anomaly 1 which has been described as vein hosted. Aeromagnetic interpreted lineaments extend to the south east from Anomaly 1 and are co-incident with uranium anomalism. Nicholson Granite crops out in many areas in and around the Murphy Inlier commonly having faulted contacts with the meta-sediments. Additionally there are mapped mid Proterozoic Constance Sandstone outcrops and potentially older unmapped sediments. Investigation of these faults, other mapped and interpreted lineaments within the Murphy Inlier and the remainder of the boundaries of the Murphy Inlier in area 3 and 4 is indicated. Area 5 was chosen to test the mapping accuracy of the unconformable Constance Sandstone / Benmara Beds / Murphy Metamorphics interface to determine if older potentially mineralised rocks occur above the basement.

4 Observations

Selected reconnaissance mapping sites were visited, photographed and observations were recorded. Site suitability was based predominantly on ease of access due to limited time available. Much of the area is only accessible by slow overland travel. The sites investigated have been named with the prefix “G” (Geology). All location co-ordinates and images are given in GDA94 UTM53.

4.1 Areas 1 & 2 Bukalara Sandstone and Westmoreland Conglomerate

Traverses of the Bukalara Sandstone within EL 24645 revealed the majority of outcrops to be flat lying +/- 12 degrees dip with the exception of site G8 where a dip of 22.7 / 334 in exposed subcrop was recorded (dubious, may be creep effect). A possible, shallow fold nose was recognised at G10 plunging at 11.6 / 255 More easterly traverses of Bukalara Sandstone were not recorded on this expedition due to terrain difficulty and time restraints though the north-south fenceline in the east of Area 2 was quickly covered with observed dips being very similar to those recorded in the west.

A reconnaissance drive was completed to Calvert Lake (Djumbarana Claypan) and some Westmoreland Conglomerate outcrops were found. Exposures close to the access track are limited and time restraints precluded wider investigation on this visit. Sufficient outcrop was examined to gain an appreciation of this unit in this locality and the following points were noted. The coarse fraction of the conglomerate examined consists predominantly of coarse sand, pebbles and very small cobbles, is matrix supported and generally finer grained than the eastern equivalents near Westmoreland.

The overlying Bukalara Sandstone in places is similar in character to some sections of Westmoreland Conglomerate. The outlier of Westmoreland Conglomerate surrounded by Bukalara Sandstone in Area 2 is confirmed with exposures occurring in an incised depression draining into Coanjula Creek. Interpretive mapping using spectrally enhanced Landsat and SPOT imagery plus airborne geophysics indicate that Westmoreland Conglomerate crops out in a number of previously unmapped

areas in a belt to the north west from the abovementioned outlier (G20,21) as shown on the accompanying map, Benmara North Interpreted Geology 1:50k. This belt, apparently covered in only a thin layer of Bukalara Sandstone is sub-parallel to the prominent north-west trending magnetic belt further to the north, interpreted as substantially thicker Bukalara Sandstone. The thinner sandstone cover appears to coincide with stronger lateritisation, possibly resulting from groundwater percolation along the unconformity and from Westmoreland Conglomerate below.

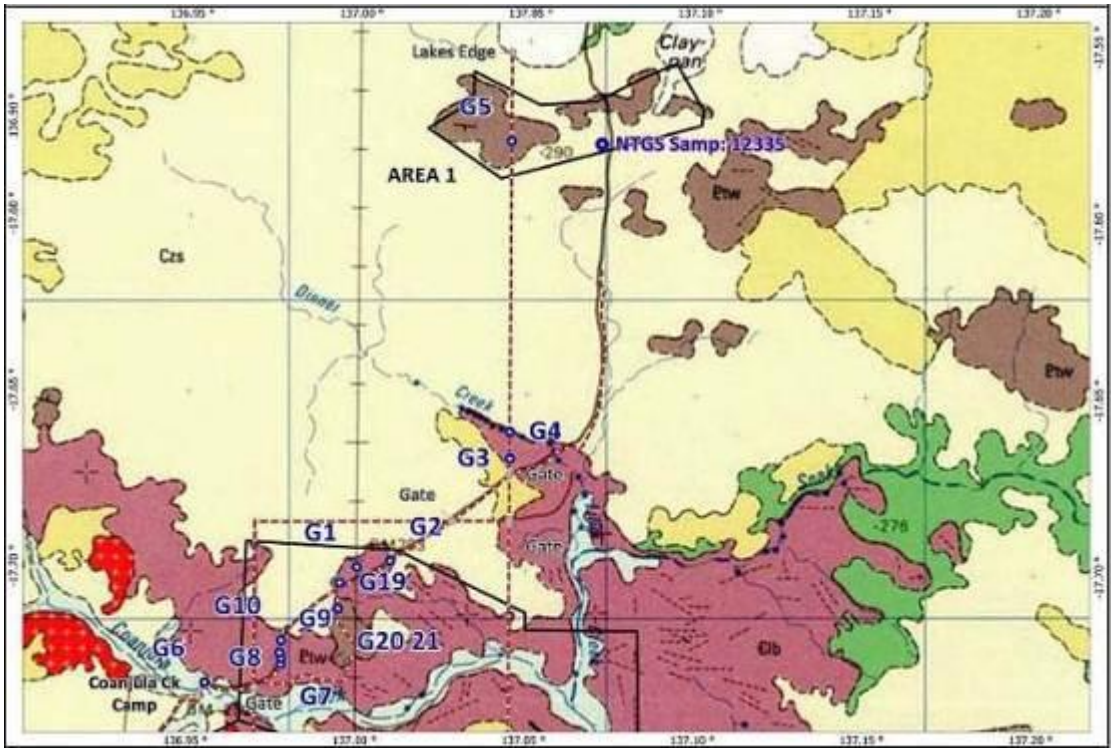


Figure 2 Area 1 & 2 Geology (250k) reconnaissance locations (G points).
(Map Base copyright – Northern Territory Geological Survey, 1989 –superseded)

The results of age determination work carried out by the Northern Territory Geological Survey (NTGS) were recently published. Sample (12335) location for Westmoreland Conglomerate is shown above on Figure 2. This is a coarse pebbly sandstone from the youngest, fourth cycle of the formation. An approximate age of 1865 Ma has been obtained and this is more tightly constrained by the <1853 Ma underlying Murphy Metamorphics (see sample 12333).

A photograph from the report is included below next to G5 for comparison. (Hollis et al, 2010)

G1 Ferruginised sandstone subcrop close to eroded laterite surface. –Clb (γ: 64 cps)

G2 Medium to coarse grained inequigranular ferruginised granite. 713175e 042140n (γ: 165 cps) (probable dyke - possible ferruginised conglomerate?)

G3 Fine to coarse grained conglomeratic (cherty) quartzite / banded lithic meta-arenite. 716930e 8045350n (γ: 84 cps). Dip 17 / 017.

G4 As above – close up. Outcrop continues in gully at 716930e 8046185n.

G5 Westmoreland Conglomerate – coarse grain ferruginous pebbly lithic quartz sandstone minor fine well rounded quartz cobbles. 717000e 8055310n GDA94_UTM53 (γ: 84 cps).

Photo NTGS-Sample:12335 "coarse pebbly sandstone" Ptw Westmorland Conglomerate.

(From: NTGS RECORD 2010-001 Figure 59)

G6 Fine to coarse sandstone and interbedded pebble conglomerate (ferrug. saprolite). Bukalara Sandstone exposed in creek bank. 707350e 8038330n (γ: 164 cps). Flat-lying.

G7 Fine to medium cherty sandstone (quartzite) ripple-marked Bukalara Sandstone exposed in gully. 709735e 8038915n (γ: 88 cps) Dip 17.3 / 017

G8 Fine to medium grained ripple-marked sandstone. 709750e 8039090n (γ: 82 cps). Dip 22.7 / 334 – unreliable.

G9 as above 709700e 8032260n (γ: 76 cps) Dip 9.5 /317

G10 Shallow plunging fold nose in Bukalara Sandstone. 709750e 8039660n (γ: 84 cps). Plunge 11.6 / 255

G19 Fine to medium grained sandstone and matrix supported poorly sorted pebbly conglomerate. 711590e 8041460n (γ: 91 cps)

G20 - 21 As above 711530e 8040650n (γ: 96 cps). Flat lying. Vertical joint strike 273 deg.

These rocks are notably similar to G5, Westmoreland Conglomerate. This area, mapped as Westmoreland Conglomerate on 1:250k geology, appears to be correct. The remainder of this traverse continued downward through the relatively steeply incised drainage revealing a continuation of similar sequence. Coarser (small boulder) cobble beds were observed and evidence of larger well rounded eroded boulders in float was seen in the base of the channel. Terrain was very difficult in

places and recommend future travel to adjacent areas and subsequent hiking. Evidence was seen of an old graded access track presumably constructed by previous explorers.

4.2 Area 3 Uranium exposure at Anomaly 1
Murphy Metamorphics (Plm) Nicholson Granite (Pgn)

Reconnaissance of much of this area was not achieved during this expedition due to the restricted availability of access tracks and time. Focus was placed on reaching Anomaly 1 by overland and investigating the local geology and structures to the south-east.

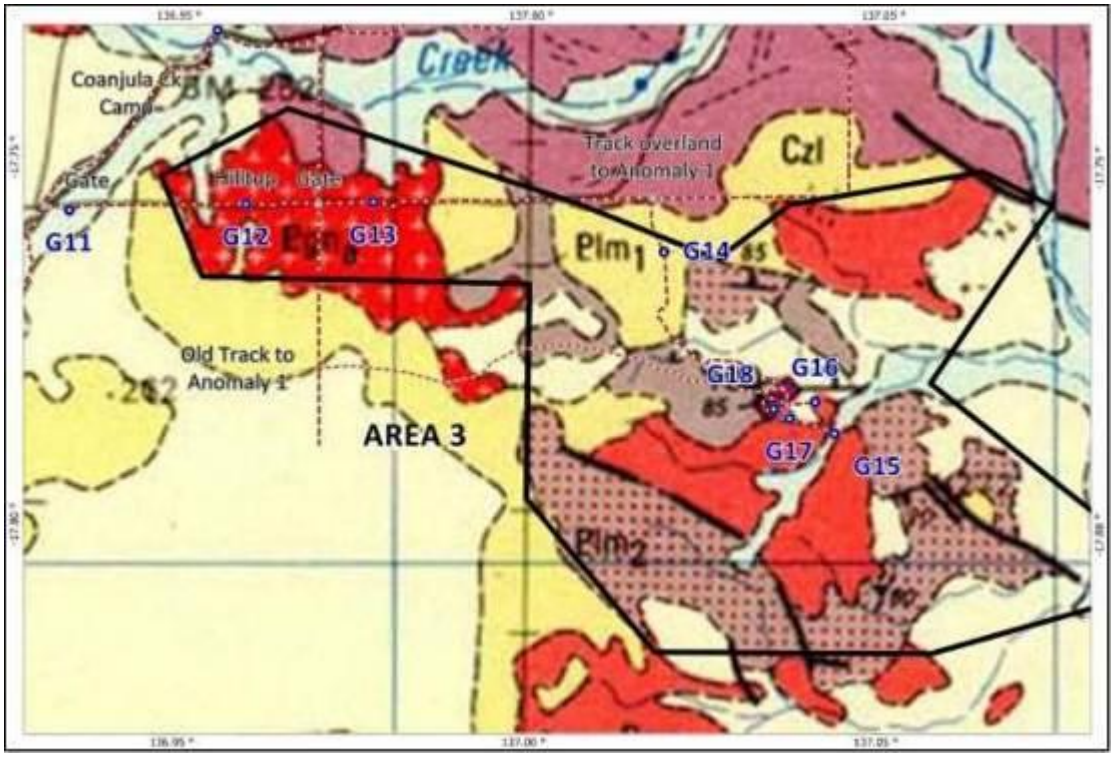


Figure 3 Area 3 - Geology (250k) with reconnaissance locations (G points).
(Map Base copyright – Northern Territory Geological Survey, 1989)

The anomaly is situated within Murphy Metamorphics close to the granite contact. The original vein exposure has been obliterated by drill pad clearing. The rocks have been dozed into rows. One drillhole collar was found at 715725e 8032620n. Drillhole declination is 60 deg. azimuth 125 magnetic. This collar is not registered on the NTGS Strike database but is estimated to be more than five years old.

G11 Medium to coarse grained pale (bleached) inequigranular granite exposed in creek bed. 705115e 8035620n (γ: 232 cps).

G12 Strongly ferruginised (laterite) medium coarse grained inequigranular granite hill. 707780e 8035713n (212 cps).

G13 Contact between granite and sandstone. 709695e 8035740n (γ: 144 cps) -no photo

G14 Quartzite w minor qtz veins, cherty. 714070e 8034990n. St. 275 (γ: 112 cps).

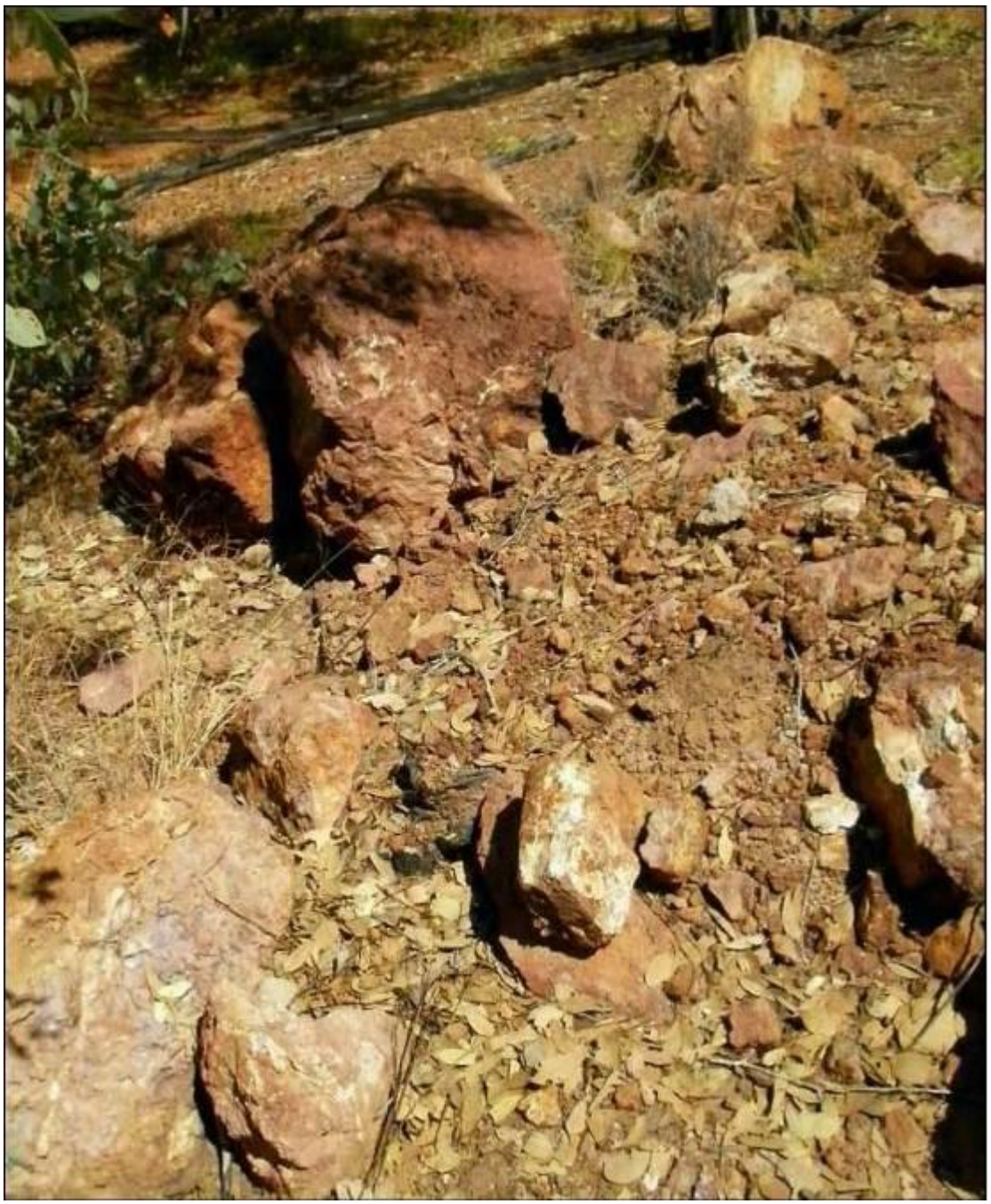
G15 Very coarse grained inequigranular granite. 716640e 8032250n (γ: <250 cps).

G16 Same as G15 (possible sediments contact). 716350e 8032730n (γ: <250 cps).

G17 Med - coarse grained equigranular granite. 716960e 8032475n (γ: 360 - 650 cps).

G18 Anomaly 1 drillhole collar – eroded. View SE. 715725e 8032620n (γ: 3600 - 4500 cps).

G18 Anomaly 1 drillpad - View West. Showy Foxtail "*Ptilotus Exaltatus*" (pink) plant. Considered a possible coloniser – probably not selecting mineralised zone?



G18 Anomaly 1 dozed float – vein. Strongly ferruginised altered shale, quartz veined breccia. Veins anastomose and vary in width between 1 and 35 mm. Whitish carbonate/sulphate/salt weathering surfaces. Minor green/yellow colourations on fresh surfaces.

G18 Anomaly 1 float vein material. Scintillometer **> 9999** cps.

4.3 Area 4 Murphy Metamorphics (Plm) and Constance Sandstone (Psa)

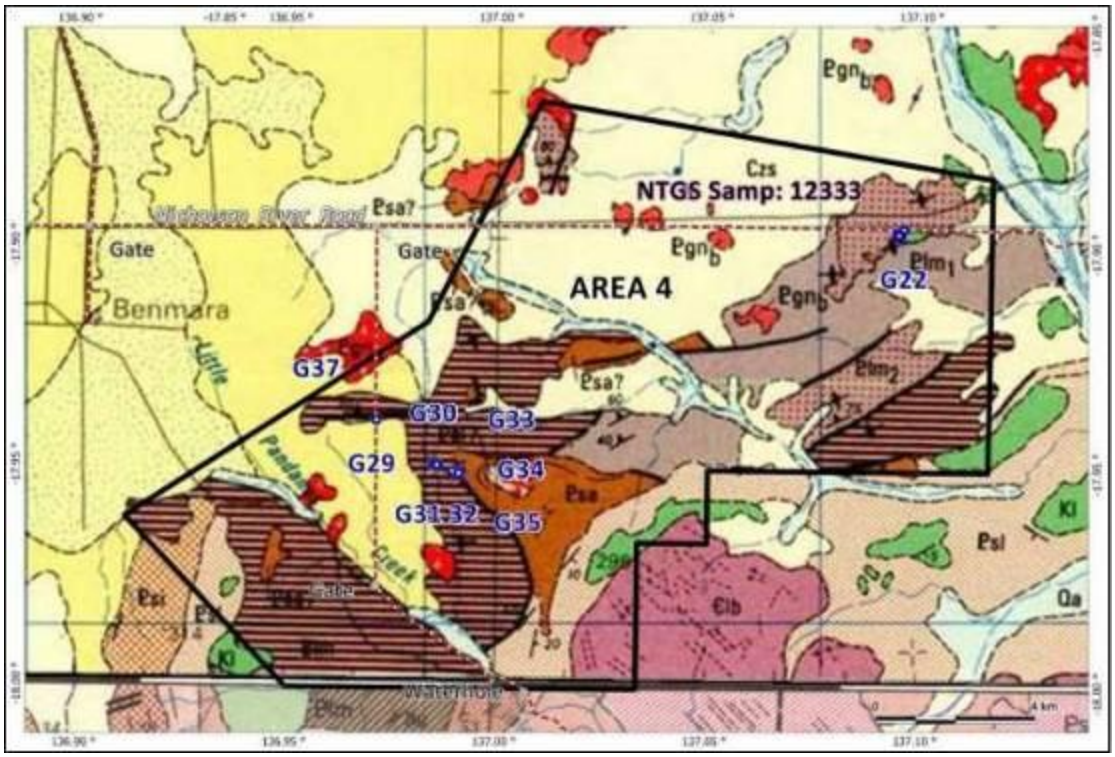


Figure 4 Area 4 - Geology (250k) with reconnaissance locations (G points).
(Map Base copyright – Northern Territory Geological Survey, 1989)

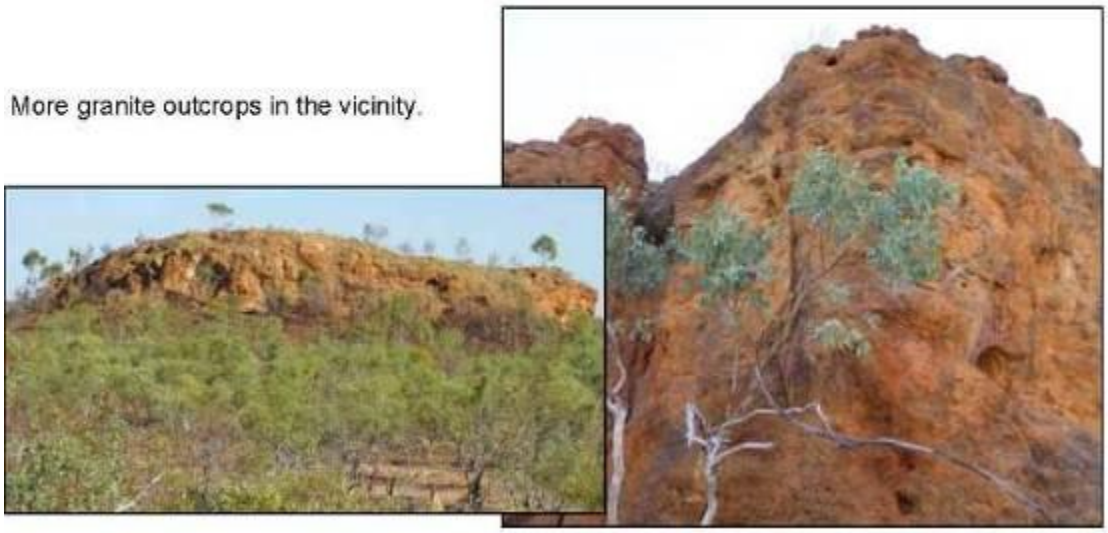
Reconnaissance was restricted to areas close to the available roads and tracks. Murphy Metamorphics and Nicholson Granite were examined along the Nicholson River Road and a traverse was made across the contact between Murphy Metamorphics and Constance Sandstone. Also of interest, G37 is located at the top of a small E-W scarp situated on a major east-west structure in the aeromagnetics. Anomalous uranium values occur in the airborne radiometrics in an east-west trend on the northern side of this structure in the vicinity of the contact between Murphy Metamorphics and Nicholson Granite.

NTGS Sample (12333) location for Murphy Metamorphics is shown above on Figure 4.

This is an immature ferruginous meta-greywacke (lower greenschist facies) consisting of angular quartz, lithic fragments, muscovite, biotite and albite, with accessory tourmaline, zircon and opaques. An approximate age of 1853 Ma has been obtained. A photograph from the report is included below G22 for comparison. (Hollis et al, 2010)

G22 Murphy Metamorphics - fine to medium grained meta-sandstone (pebbly) / siltstone near granite, brecciated and quartz veined (sheared east west). 722070e 8020210n (107 cps). View East.

Photo NTGS-Sample:12333 Meta-greywacke Plm Murphy Metamorphics (From NTGS RECORD 2010-001 Figure 55). Nicholson Granite nearby along roadside to west.



Nicholson Granite nearby along roadside to west.

G29 Mullera Formation (-Psl) or (-Plm?) – medium to coarse grained matrix supported pebbly sheared meta-sandstone, minor quartz veining. Dip vertical 710175e 8014310n (84 cps).

View South

View East

G30 -Psl hilltop - medium to coarse grained sheared pink meta-sandstone, minor qtz vein. Bed Dip 65 / 132. Shear Strk 75 / 265. 710220e 8014320n (91 cps).

View south

G31 Similar to G 29. Medium to coarse grained matrix supported pebbly sheared meta-sandstone with quartz veins. 710300e 8014300n. Dip 50 / 230 (144 cps).

G32 Creek exposure similar to G 30. -Psl? – medium to coarse grained sheared pink meta-sandstone, minor qtz vein. Dip 69 / 210. 710220e 8014320n (131 cps).

G33 -Psl hilltop – fine to med grain strong ferruginised sandstone. 710680e 8014150n (87 cps). View south.

View east.

G34 Psa hilltop – fine to med grain pale pink sandstone. 710920e 8014160n (118 cps).

G35 Fine to coarse grain sandstone / pebble conglomerate. 710845e 8014090n (86 cps)

G36 Coarse boulder conglomerate – well rounded, poorly sorted, matrix supported. Exposed lens approximately 5 m wide. 710845e 8014090n (94 cps).

G37 Top of low scarp, E-W trending sheared conglomerate and sandstone with small quartz veins. 708780e 8015450n. Strike 273. No Photo.

4.4 Area 5 Murphy Metamorphics (Plm) Buddycurrawa Volcanics (Pbb) Constance Sandstone (Psc) Crow Formation (Psa)

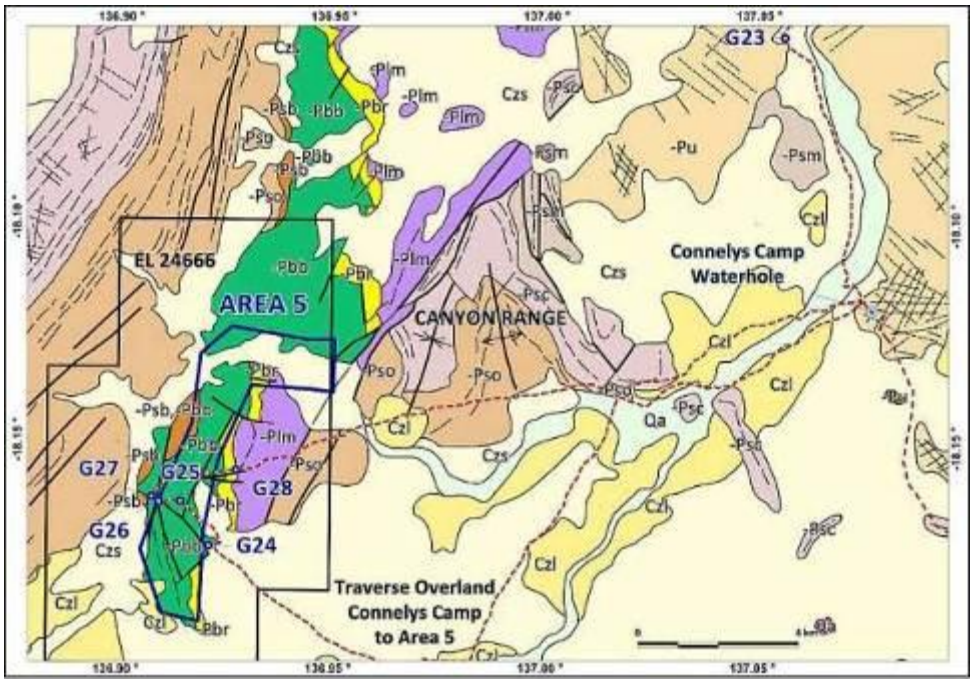


Figure 5 Area 5 - Geology (250k) with reconnaissance locations (G points).
(Map Base copyright – Mount Drummond 1:250k Geology NTGS, 2006)

Initial planning for the reconnaissance of Area 5 was based on the 1:250k geology map published in 1963 by BMR. It has since become apparent that an updated version released in 2006 is available for download in digital form from the NTGS. The updates relate mainly to Geoscience Australia published changes to the stratigraphy in this sheet, particularly in the vicinity of Area 5.

The formally defined (2005) Crow Formation (containing Tobacco Member) encompasses about half of the outcrop that was formerly mapped as Mullera Formation by Smith and Roberts (1963) in the western half of the first edition of Mount Drummond. This outcrop, plus a similar narrow strip of Crow Formation along the Canyon Range, is reassigned to a separate upper member of the Crow Formation - the Tobacco Member. Crow Formation also includes a small anticlinal outcrop area in the Canyon Range (710000E 7995000N) that was incorrectly mapped as 'Benmara beds' by Smith and Roberts (1963). Briefly described as white, silicified, fine to very coarse grained to pebbly, quartzose to lithic sandstone and local pebble to cobble conglomerate; minor glauconitic sandstone, interbedded shale and siltstone.
(Rawlings, D.J. et al, Australian Stratigraphic Units Database, Geoscience Australia, 2005)

Revised stratigraphic descriptions for the units in the area are given below in Table 2.

Symbol	Age (min) (Ma)	Formation Name	Description
-Pu (-Clb)	542	Bukalara Sandstone	Pink or yellow, friable, medium to coarse grained lithic sandstone; minor fine grained sandstone; basal pebbly sandstone and pebble to cobble conglomerate
-Psm	1400	Mullera Formation	Green, grey & red-brown, maroon, micaceous, locally ferruginous siltstone, variably carbonaceous shale and fine grained, lithic to quartzose sandstone; minor medium-grained quartzose sandstone
-Psc (-Psa)	1400	Constance Sandstone	White, yellow and brown, friable, medium-, coarse- and very coarse-grained to granule sandstone; minor siltstone and shale
-Pso Czs	1400	Crow Formation	Interbedded lithic micaceous siltstone & fine-grained sandstone, red-brown to grey shale, chalky white claystone, fine to medium grained, quartzose to sublithic sandstone; minor local red-brown, poorly sorted, feldspathic, micaceous, ferruginous and lithic, medium to very coarse grained sandstone, pebbly sandstone and matrix-supported conglomerate; Czs Residual sand sheets
-Psb	1400	Bowgan Sandstone	Maroon, variably ferruginous, lithic to sublithic, fine to coarse grained & pebbly sandstone; minor cherty digitate stromatolites; local basal chert-clast conglomerate or breccia
-Pbb	1600	Buddycurrawa Volcanics	Ferruginous coarse sandstone, massive and brecciated trachyte, poorly sorted immature lithic sandstone and pebble conglomerate, mature sandstone, ferruginous siltstone and fine sandstone; minor stromatolitic chert
-Pbr	1600	Breakfast Sandstone	White/pink, medium to coarse grained silicified sublithic sandstone; thin basal pebble or cobble conglomerate; rare cherty stromatolitic carbonate
-Plm	1845	Murphy Metamorphics	Purple micaceous metasiltstone (phyllite) metagreywacke and quartz-mica schist with locally abundant quartz veins; minor metaquartzite, banded ironstone and calc-silicate rock

Table 2 Stratigraphic Unit Descriptions (from: Mt Drummond 1:250k Geology, NTGS,2006)

Bukalara Sandstone (-Pu) differs from the nomenclature in the adjoining Calvert Hills 250k sheet where it is still –Clb. Similarly with Constance Sandstone –Psc/-Psa. This

photo (below) is of Bukalara Sandstone outcropping near Connelly's Camp Waterhole.

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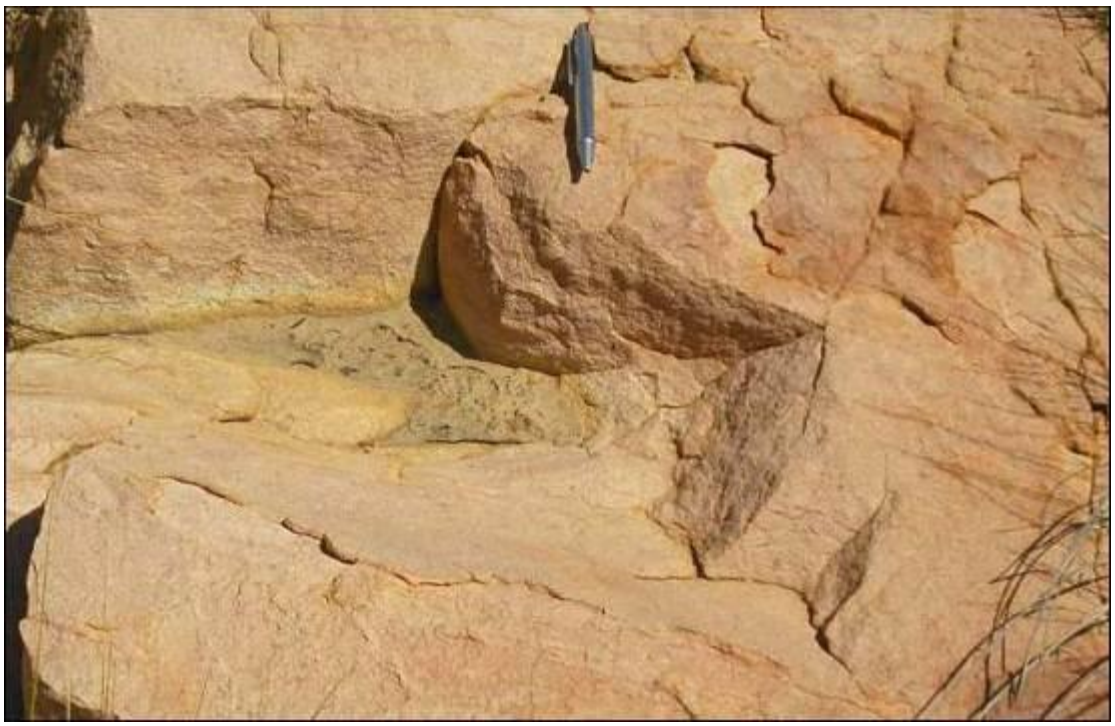
G23 Poorly sorted, well rounded, matrix supported polymict conglomerate. Mainly quartzite pebbles / small cobbles. Bukalara Sandstone (Pu / -Clb) basal cgm 717620e 8002180n.



G24 Medium to coarse grained feldspathic quartz sandstone. (-Pbb/-Pbr?) 703250e 7989560n (<120 cps).

G25 As above - Med to coarse grained feldspathic quartz sandstone. 702550e 990670n.

G26 Fine to coarse grained sheared metasediments (-Pbb) with quartz veins and boudins? - sheared conglomerate? 702005e 7990660n. Dip 56 / 250 (<120 cps).

G27 175 metres further west - weathered volcanics? 701830e 7990790n.

5 Remote Sensing and Image Processing

A number of datasets were examined and processed to assist in mapping. SPOT ImageMap five metre resolution (pre-processed RGB) imagery was obtained for use as a field mapping base. These data were imported into ERmapper and stretched before printing at suitable scales on A4 photo paper. Individual prints were then laminated for protection and field annotation. Coverage of SPOT ImageMap data is shown below in Figure 6.

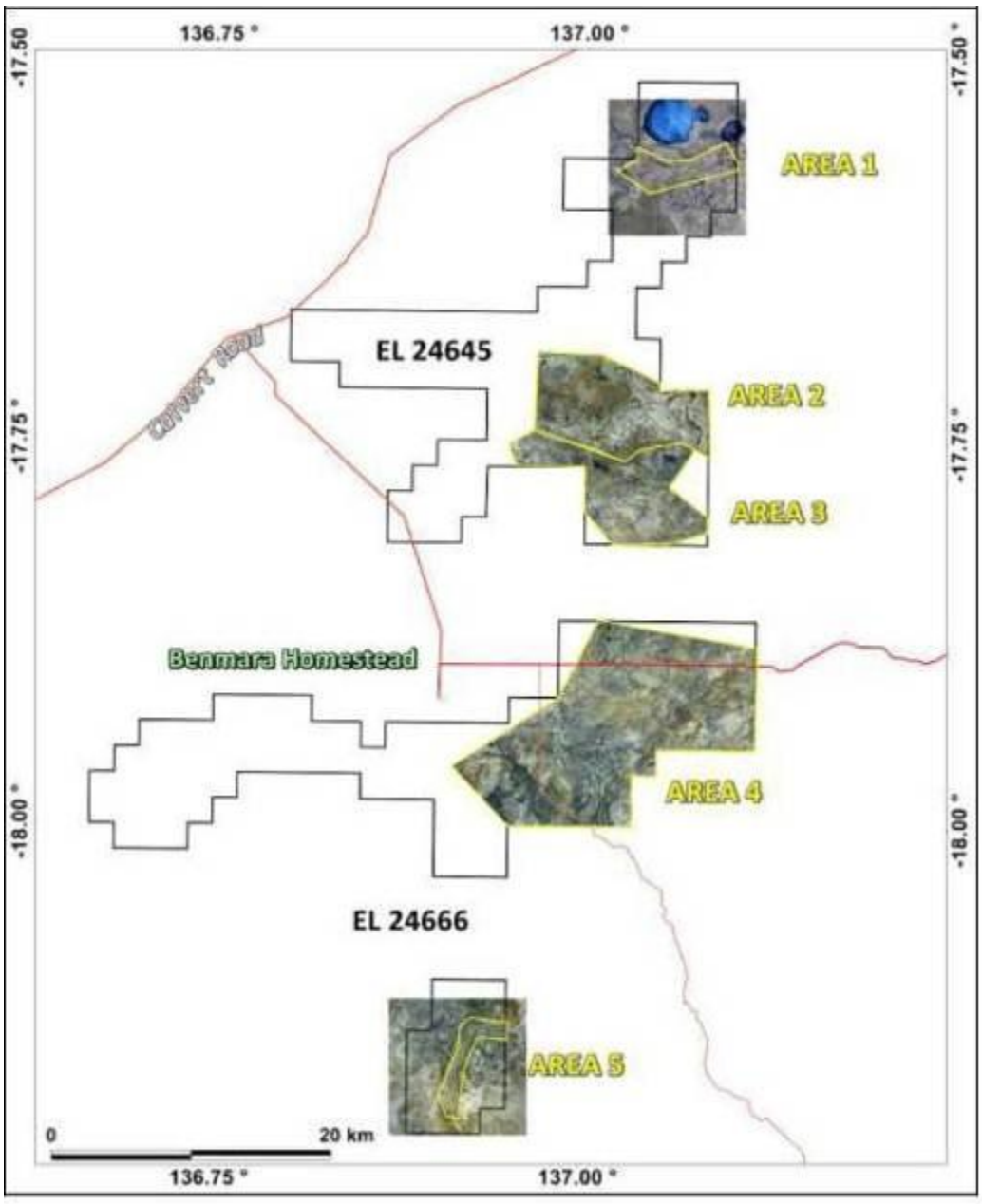


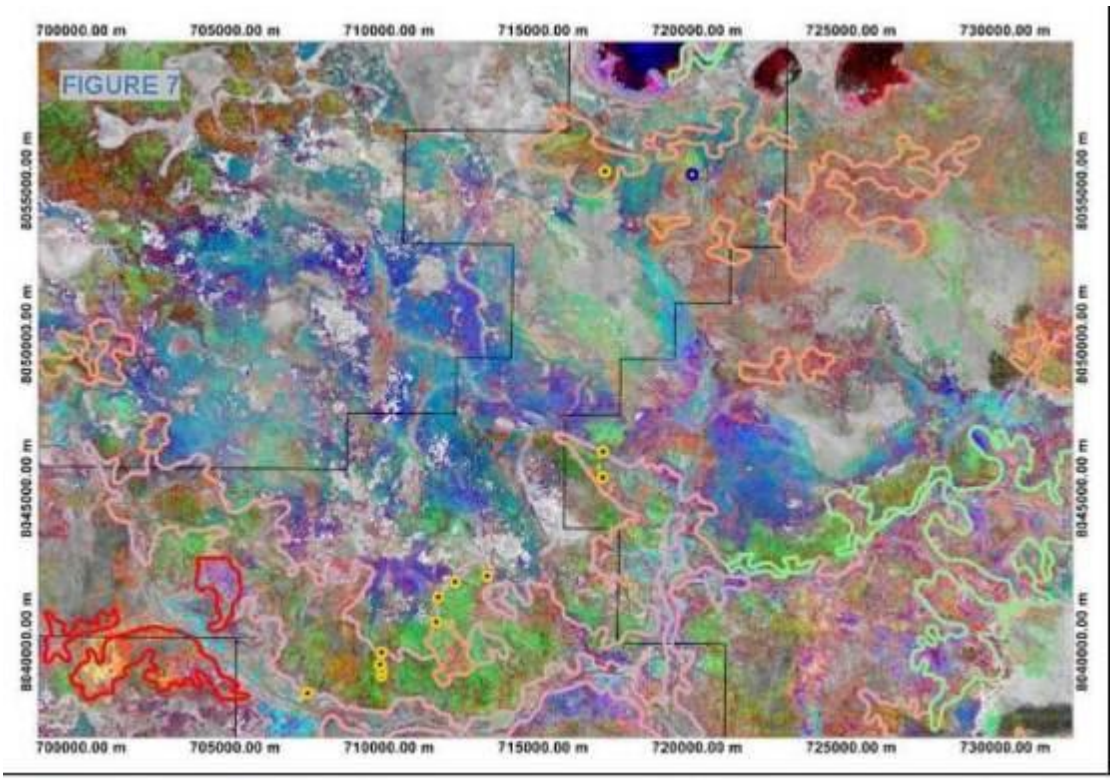
Figure 6 SPOT Image Map Coverage

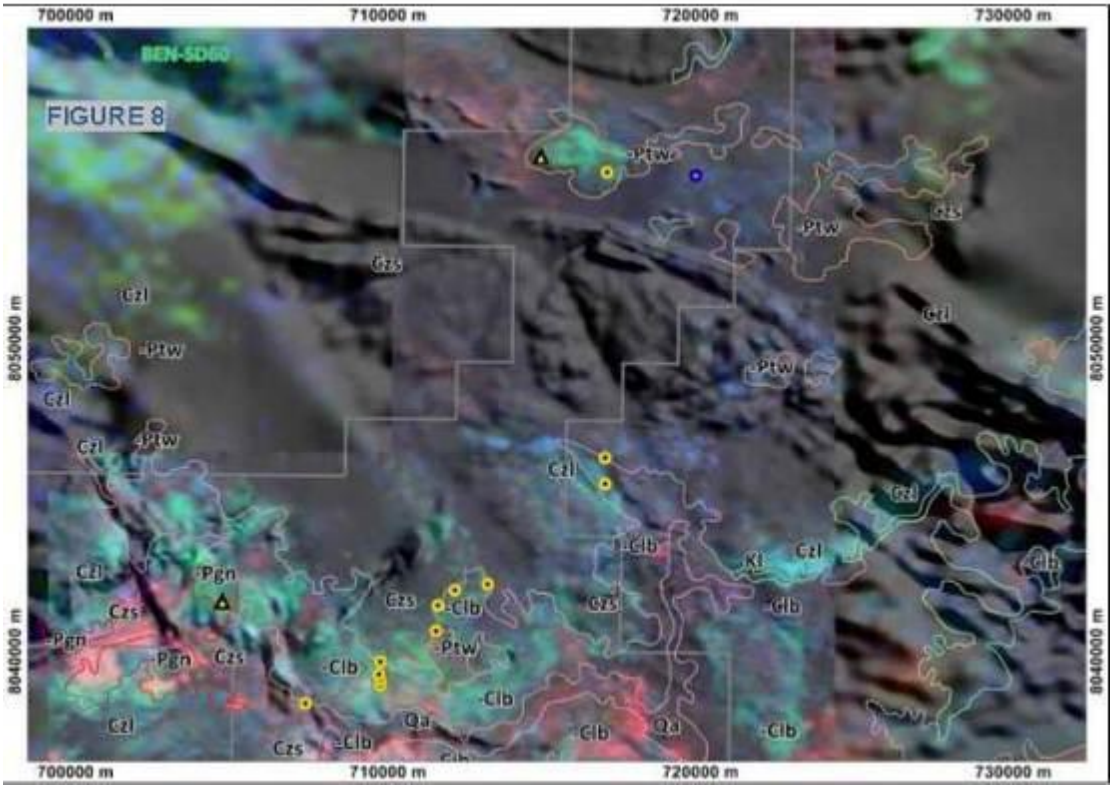
Landsat imagery has been used for spectral processing and interpretation over the ELs and as a regional backdrop. The processing methodology initially involved vegetation stripping by blanking pixels according to thresholded NDVI response. Subsequently the remaining data has been enhanced in three ways with each being combined into one channel of a RGB image. The blue channel is simply an addition of TM bands 1 and 7 which highlights silica. The green channel consists of an addition of ratios for ferrous and ferric oxides and the red channel contains enhanced clays using the LSfit method. In this image, bright red areas are representative of clay (kaolinite). Bright green areas are indicative of high iron oxide concentrations (laterite) whilst blue represents quartz and silicification. Intermediate tones such as hot pink represent a mixture of both clay and silica, yellow represents a mixture of clay and iron oxide and aqua represents silica and iron oxide.

5.1 Areas 1 and 2

Figure 7 below is an image of areas 1 and 2 showing the results of this technique overlayed with the 1:250k scale mapped outcrop extents for the main lithologies. The small inlier (G20) of –Ptw (Westmoreland Conglomerate) surrounded by –Clb (Bukalara Sandstine) has a distinctive orange-red-yellow colouration separating it from the surrounding green (FeOx) laterite covered –Clb hilltops. Examination of the image shows potentially unmapped –Ptw (enigmatic) and –Pgn (Nicholson Granite) in a number of locations. The spectral signature from areas of –Ptw contains a mix of clay and iron response; however this is not dissimilar from –Clb in nearby exposures. -Clb is described as red and feldspathic and therefore presumably gives rise to iron oxides and clay (though Westmoreland Conglomerate does also), and bright green (FeOx) responses in most cases correspond closely with mapped extents of –Clb. This may be explained by its high iron content giving rise to more substantial laterite. Fire burn scars cause confusing patterns where unburned remnant vegetated areas may have a residual vegetation response (red – mixed with clay) as the vegetation stripping threshold was unable to separate all the dryer vegetation. The scars are most obvious where they occur next to denuded areas with strong iron oxide response (Bukalara Sandstone / Laterite). This is notably not the case with the –Ptw outlier which has large bare areas and a genuine clay response. The opposite effect occurs in sandy areas which have been burned mainly showing an exaggerated response for silica that masks the other bands. Careful examination reveals the masked colours, dark purple representing a clay component under the dark blue silica or aqua where there is an iron oxide component.

There is generally good correlation between the spectrally enhanced Landsat and geophysics data. Laterite cover shows strong correlation between high FeOx and elevated thorium values. The large outcrop of –Ptw just south of Lake Calvert also shows a strong thorium response presumably due to lateritic concentration. It is apparent that a large region in the north east of the image, mapped as laterite, soil and sand, gives a range of clay/iron spectral responses suggesting almost the entire area contains –Ptw near surface. Large dark blue areas are dominated by sandy colluvium. The large area mapped as Cretaceous Mullaman Beds (Kl) in the south east corner is spectrally mixed indicating the thin (70 metres max.) remnant cover is more restricted and mainly evident as dark blue tones. The tones of the westerly adjacent area mapped as –Clb are quite different from other more iron rich (bright green) areas in the lower middle part of the image. There is mapped granite situated in the south west corner with very low potassium, high thorium response that remains unexplained and there are also a number of high potassium areas scattered around the image that are not currently mapped as granite. The following two images are of Area 1 and 2. Figure 7 shows enhanced Landsat-7 with 1:250k geology overlay and contains enhanced cover-types Red:clay, Green:FeOx, Blue:Silica, and geology as; Orange -Ptw, Pink –Clb, Red –Pgn, Green Kl. G points are yellow circles. Figure 8 contains radiometrics displayed as; Red:Potassium, Green:Thorium, Blue:Uranium draped over north east shaded magnetics with 1:250k geology overlay.





Drillhole BEN-SD60 located in the NW corner of Figure 8 near Calvert Road was drilled in 1981 by Afmeco.

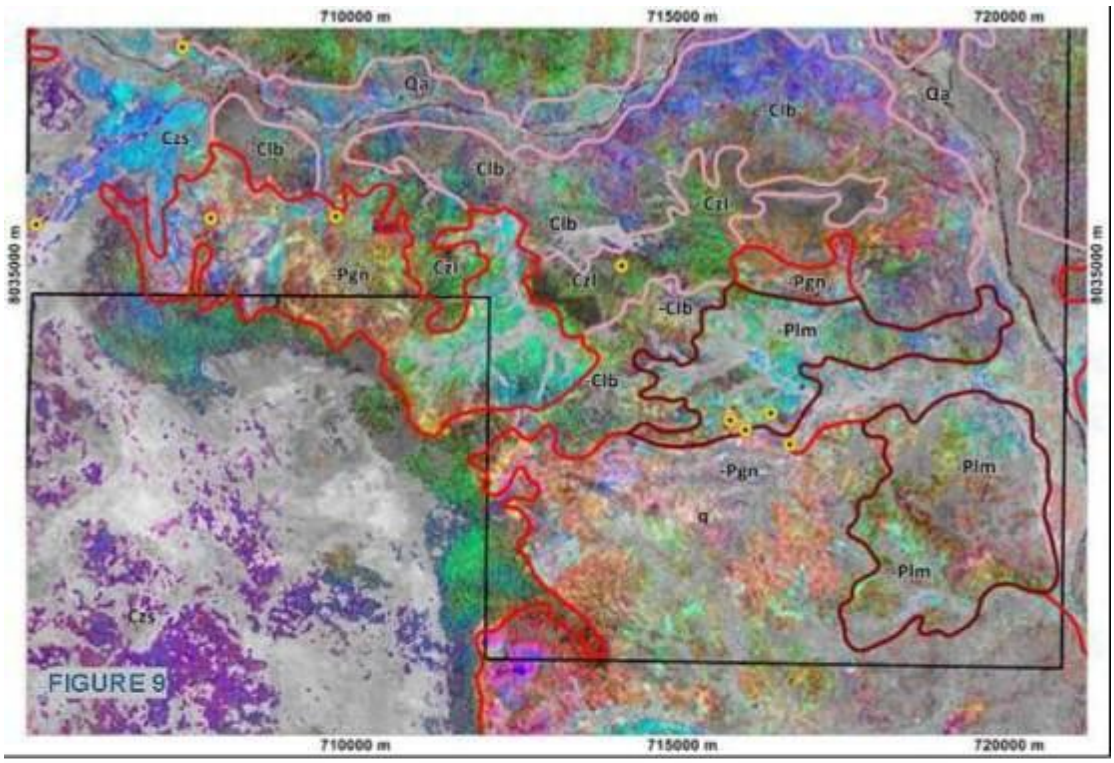
5.2 Area 3

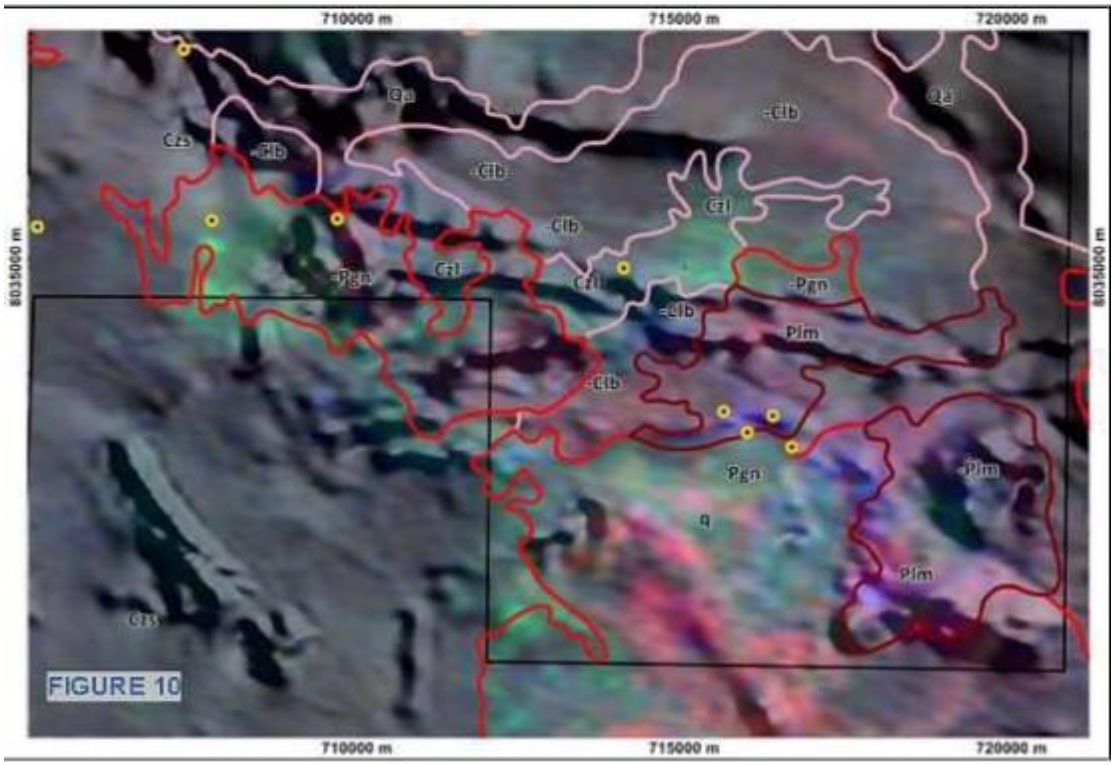
Similarly enhanced imagery has been produced for the remaining areas. In area three there is also good correlation between spectral and radiometric responses highlighting some possibly large inaccuracies in the mapped boundaries of granite

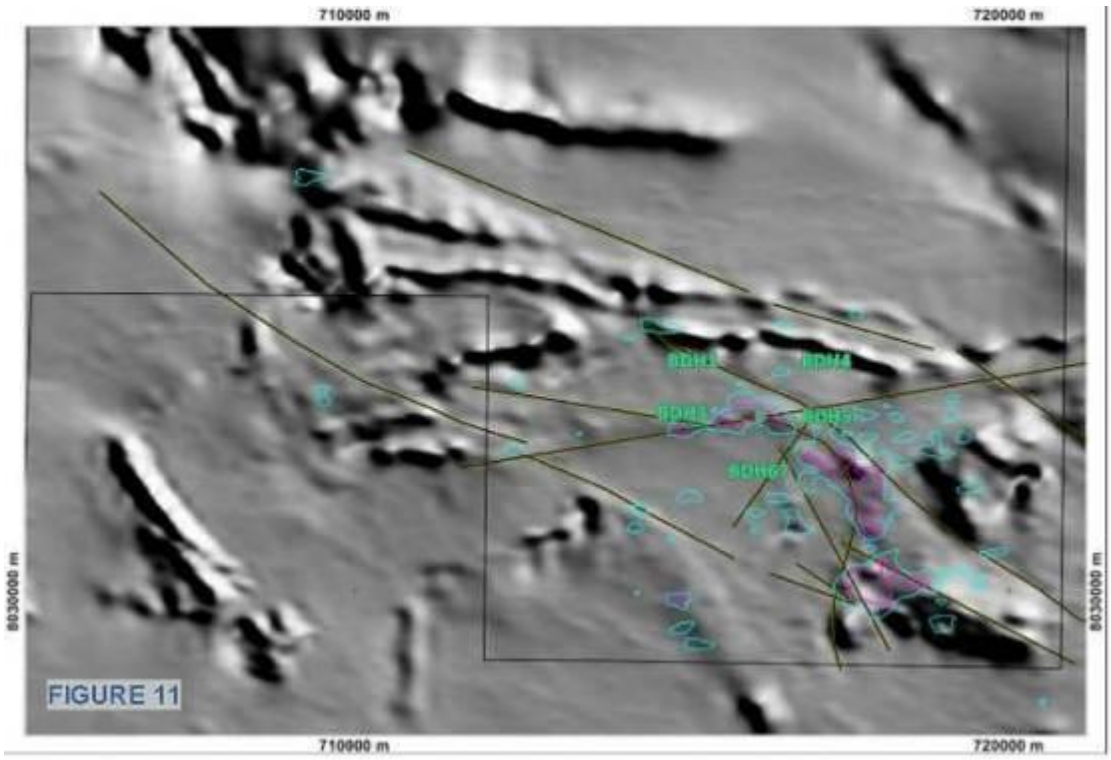
and Murphy Metamorphics. There is a repositioning of the location of the contact in the more recent digital geology however this doesn't seem to be correct either in view of the spectral and radiometric responses observed.

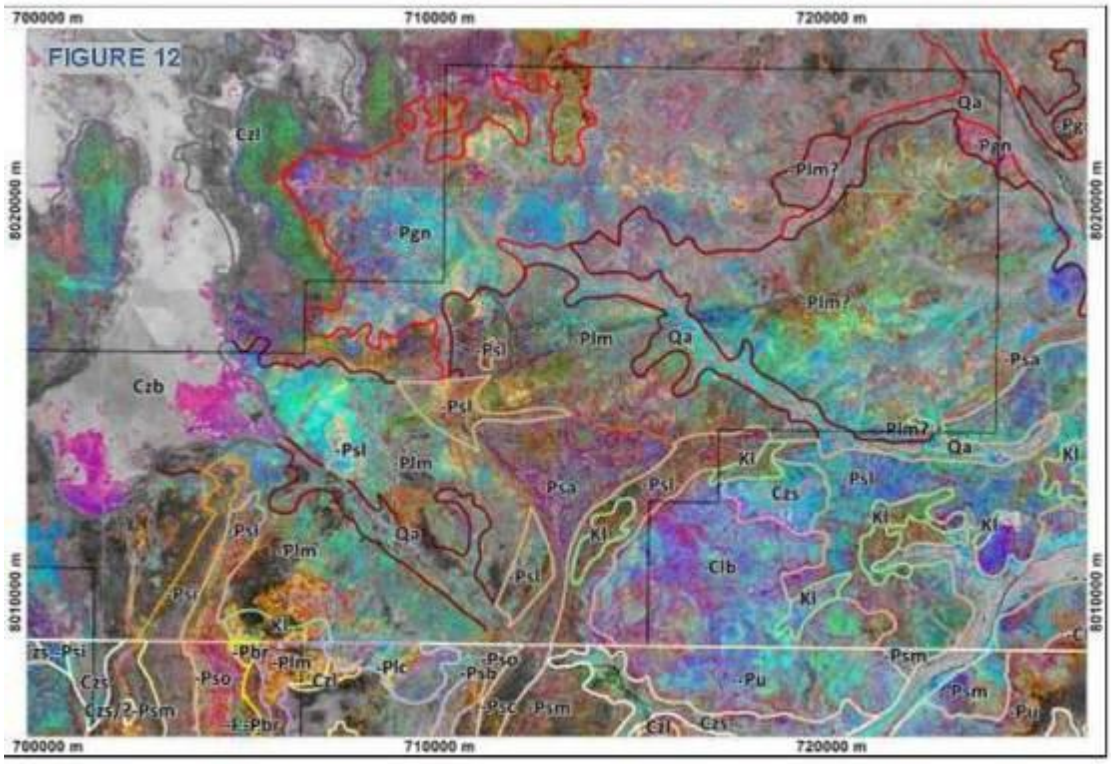
The uranium anomalism appears to follow a trend along the contact between these two lithologies with the strongest mineralisation at Anomaly 1 occurring in a shear in the metamorphics. An additional image using a greyscale backdrop of the magnetics has been produced with radiometric uranium anomalies as contours. There is evident in this image a strong W-N-W trending structural influence with a number of major faults and a less obvious North West trend. There is also clearly evident a less intense E-N-E trending structure passing through Anomaly 1. Structural trends are in flexure around the granites eastern boundary coincident with a south easterly trend of uranium anomalism. Reported drilling has been clustered around the vein exposure as shown in Figure 11 below. Joint venture partner Lagoon Creek Resources recently carried out ground scintillometer, soil and rock chip sampling in the area covering the uranium anomalism trend to the south east from Anomaly 1. The approach has been of a reconnaissance nature and a good deal of untested strike remains. Rock chip assays returned values of between 37 and 68 ppm uranium from samples taken along the south-west trend away from Anomaly 1.

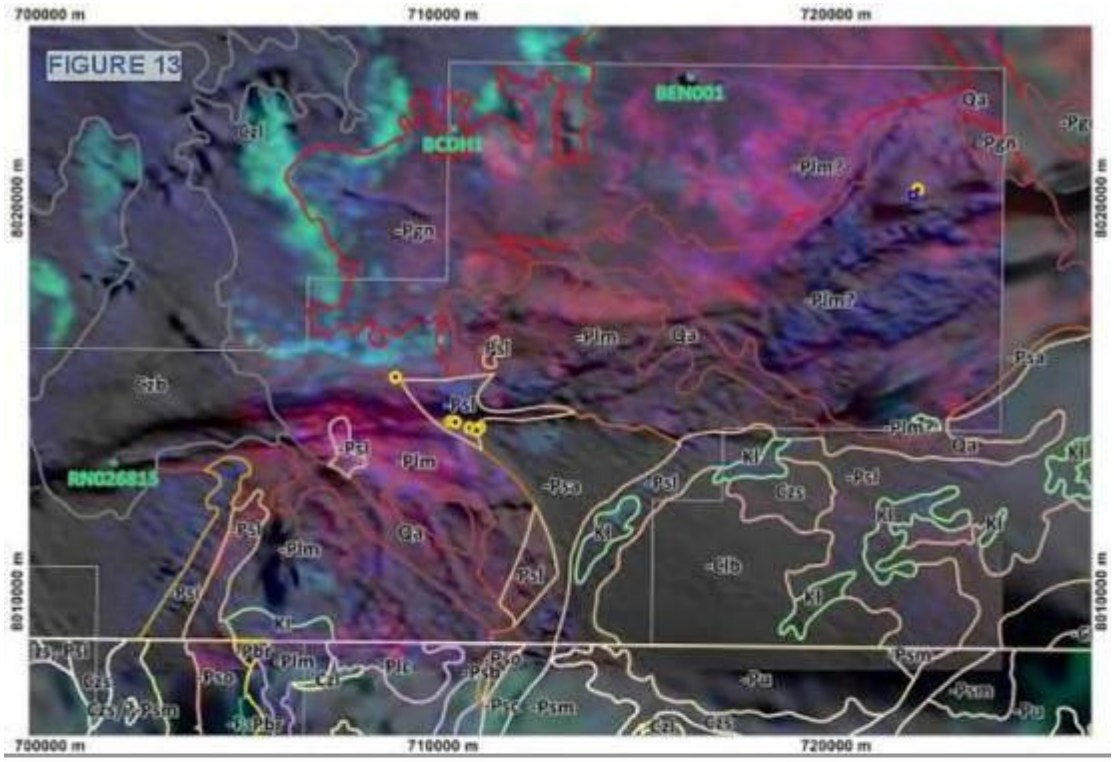
Figure 9 shows enhanced Landsat-7 with 1:250k geology overlay and comprises enhanced cover-types Red:clay, Green:FeOx, Blue:Silica, and geology; Pink –Clb, Red –Pgn, Brown -Plm. G points are yellow circles. Figure 10 contains radiometrics displayed as; Red:Potassium, Green:Thorium, Blue:Uranium draped over shaded magnetics with 1:250k geology overlay. And Figure 11 shows greyscale magnetics with airborne radiometric uranium anomaly contours.

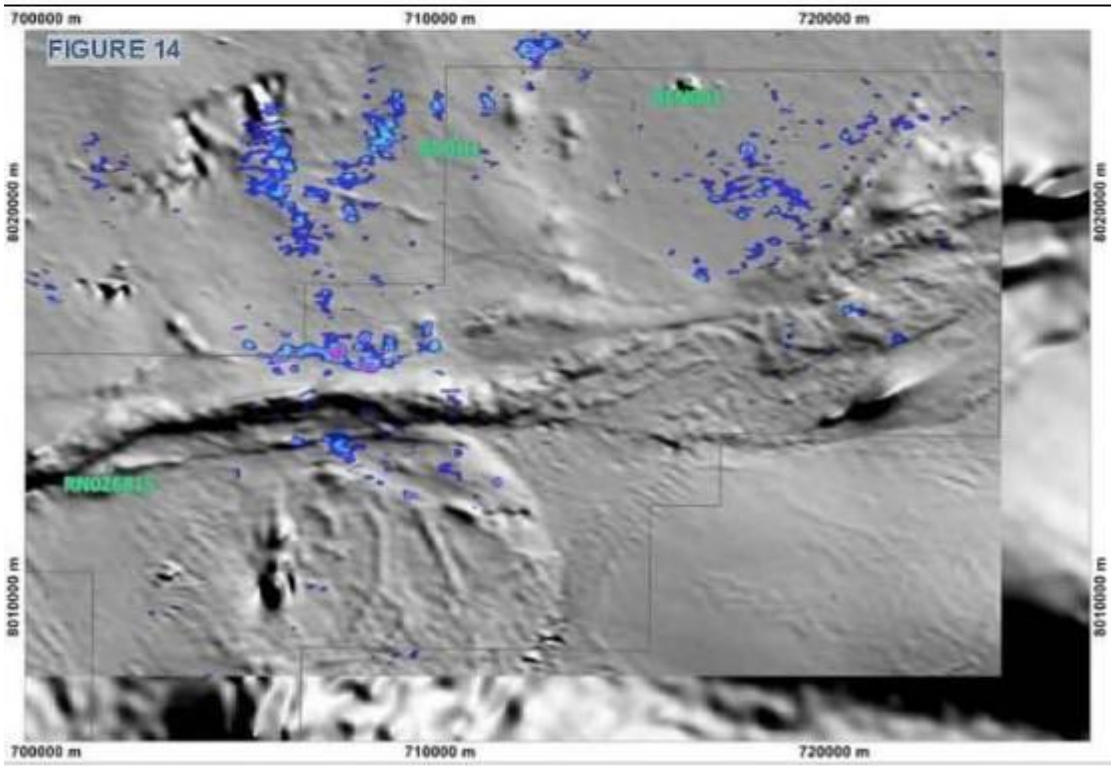

710000 m
715000 m
720000 m
8035000 m
Qa
Czs
Clb
Czl
Pgn
Plm
q
FIGURE 9


710000 m
715000 m
720000 m
8035000 m
Qa
Czs
Clb
Czl
Pgn
Plm
q
FIGURE 10


710000 m
720000 m
8030000 m
FIGURE 11


700000 m
710000 m
720000 m
8020000 m
8010000 m
FIGURE 12
Czl
Pgn
Plm?
Qa
Psl
Plm
Czb
Pca
Kl
Czs
Clb
Psa
Psm
Pu





5.3 Area 4

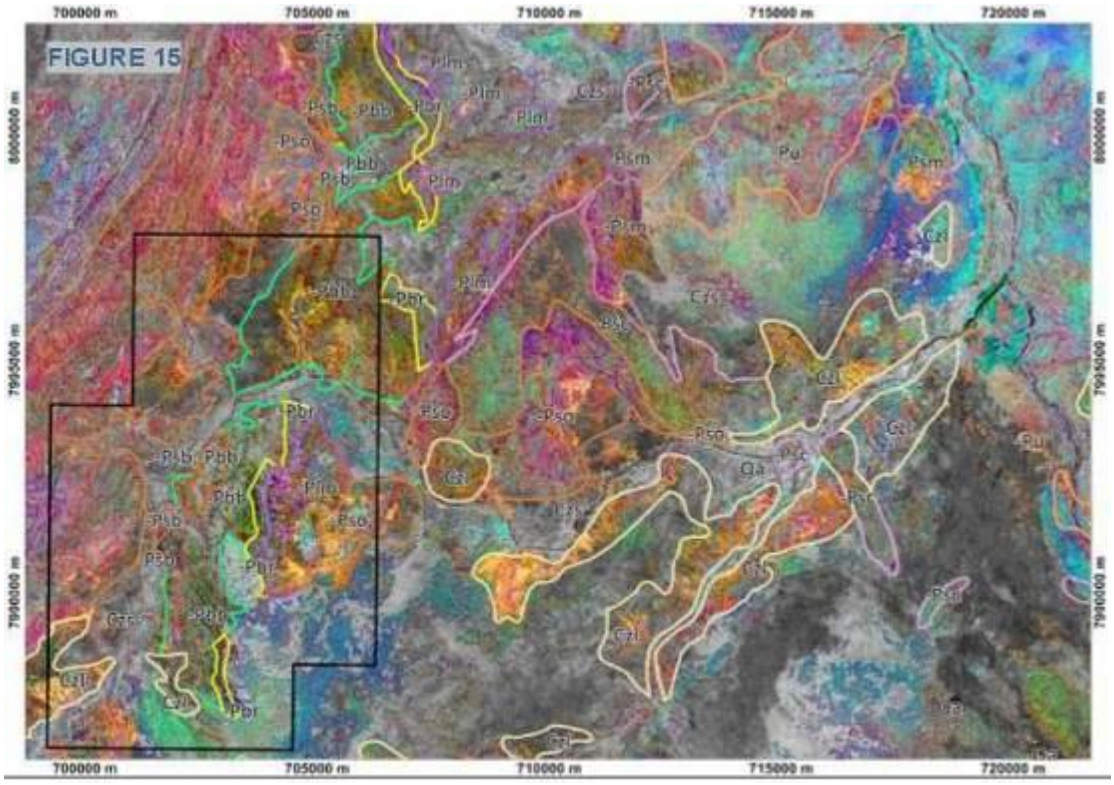
Enhanced Landsat imagery for Area 4 shows strong correlation with the 1:250k geological mapping and with airborne radiometrics imagery. Uranium anomalism in this area appears mainly to be with thorium in laterite around granite peripheries. Higher concentrations are apparent along an east west trend in the magnetics in the vicinity of the contact between –Pgn and –Plm. This trend is sub-parallel to the structure coinciding with Anomaly 1 in Area 3 and is situated along a fault on the

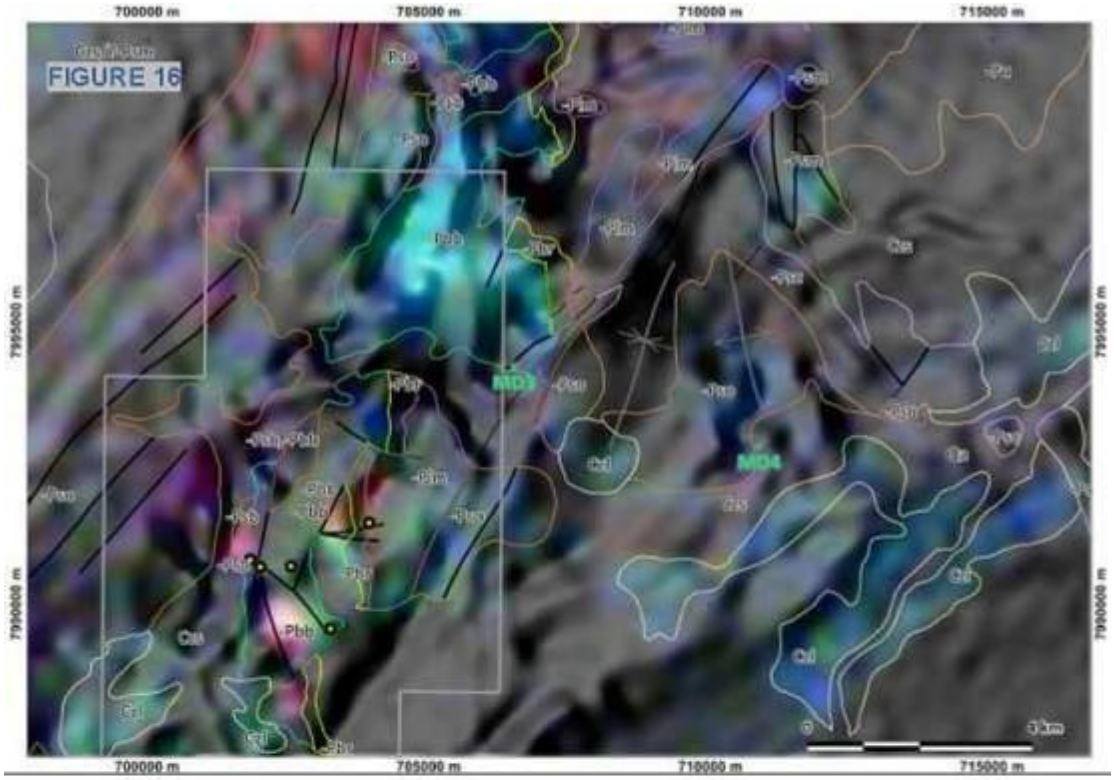
north side of a major shear zone evident in the magnetics. Anomalies 30 and 4901 are situated to the east along the same structure.

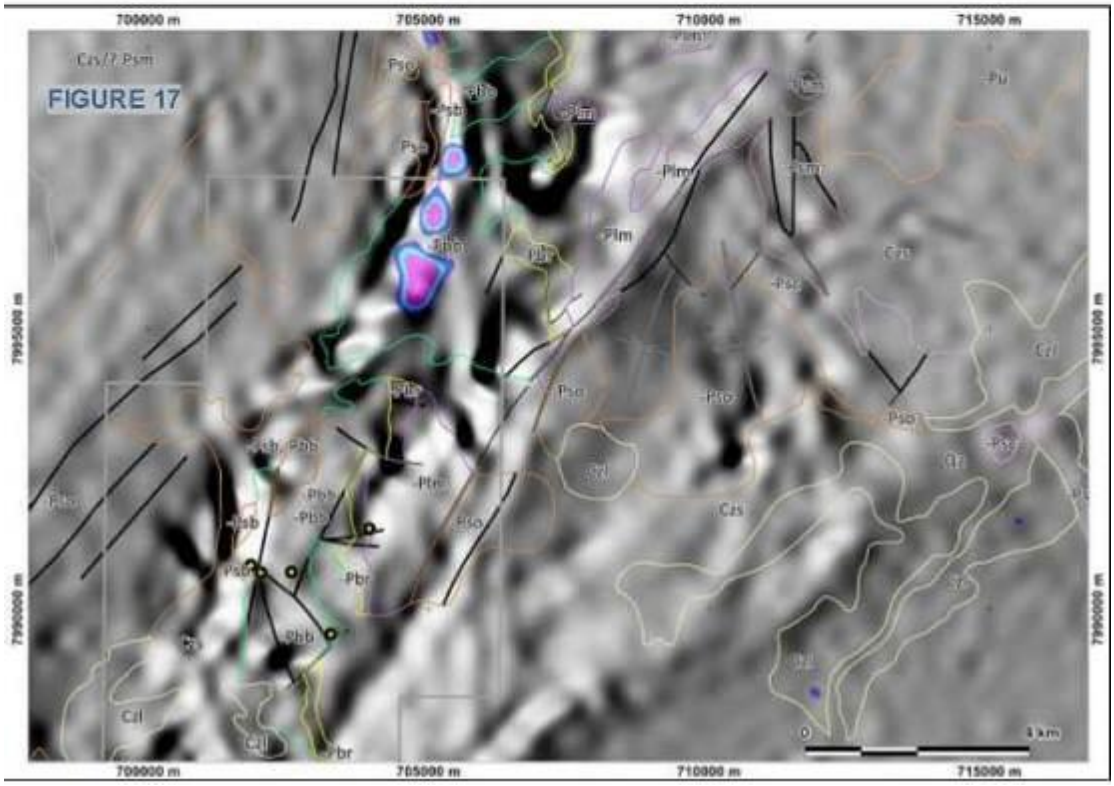
Figure 12 shows enhanced Landsat-7 with 1:250k geology overlay and comprises enhanced cover-types Red:clay, Green:FeOx, Blue:Silica, and geology; Pink –Clb, Red –Pgn, Brown -Plm. G points are yellow circles. Figure 13 contains radiometrics displayed as; Red:Potassium, Green:Thorium, Blue:Uranium draped over shaded magnetics with 1:250k geology overlay. And Figure 14 shows greyscale magnetics with airborne radiometric uranium anomaly contours.

5.4 Area 5

Mapped Laterite extents vary from previous areas in the north in having a strong clay component giving these areas a yellow and red colouration as opposed to the green (FeOx) response seen further north. These areas continue however to show weak thorium and uranium anomalism. Of more interest is a larger anomalous area in the north of the tenement. Figure 17 shows airborne radiometric uranium concentrations of about 8ppm occur along a major structure within an area mapped as Buddycurrawa Volcanics (-Pbb). Elsewhere in the vicinity two drillholes MD3 and 4 were drilled by Ashton Mining Ltd in 1986 presumably on diamond targets.







6 Previous Exploration

A previous exploration database other than for work recently completed by Lagoon Creek Resources has not been made available prior to this expedition and does not form part of the scope of this report; however some information relating to drillhole collar locations and company reports has been downloaded from the NTGS – STRIKE website. These data are displayed in the following table and drillhole collar

locations have been shown on the images above. The drillhole collar observed at G18 is not reported by the NTGS database.

Drillhole	Company	Depth	Tenement	Report
BEN-S100	Afmeco Pty Ltd	126.6	EL2137	CR1981-0123
BEN-SD60	Afmeco Pty Ltd	140.8	EL2137	CR1981-0123
BEN001	BHP Minerals Ltd	57	EL9660	CR1998-0098
BDH1	Mines Administration Pty Ltd.	52.45	EL2135	CR1980-0143
BDH3	Mines Administration Pty Ltd.	86.9	EL2135	CR1980-0143
BDH4	Mines Administration Pty Ltd.	89.4	EL2135	CR1980-0143
BDH5	Mines Administration Pty Ltd.	56	EL2135	CR1980-0143
BDH67	Mines Administration Pty Ltd.	56.5	EL2135	CR1980-0143
BCDH1	Mines Administration Pty Ltd.		EL2135	CR1980-0143
MD11	Ashton Mining Ltd.	57.5	EL4361	CR1986-0062
MD3	Ashton Mining Ltd.	82.1	EL4361	CR1986-0062
MD4	Ashton Mining Ltd.	219.1	EL4361	CR1986-0062
MD7	Ashton Mining Ltd.	55.4	EL4361	CR1986-0062
MD9	Ashton Mining Ltd.	73.2	EL4361	CR1986-0062
RN026815	NTGS			

Table 3 Previous Exploration Drilling (from: NTGS STRIKE database 2010).

Previous work in the region has been dominated by diamond exploration. Ashton operated in the area for many years and constructed lasting tracks. Despite large microdiamond sheds, favourable associated mineralogy, numerous aeromagnetic dipolar spot targets, drilling at Coanjula Prospect to the south-west of Benmara (litharenites, mesoproterozoic alkali basalt), and presumably large amounts of sampling, there has been no resource reported to date. Uranium exploration has been sporadic and focussed briefly on surface mineralisation at Anomaly 1. Gold exploration has also apparently received little attention.

A search of available open-file geophysics surveys has revealed several datasets covering the tenements. The coverage is shown in the following figure.

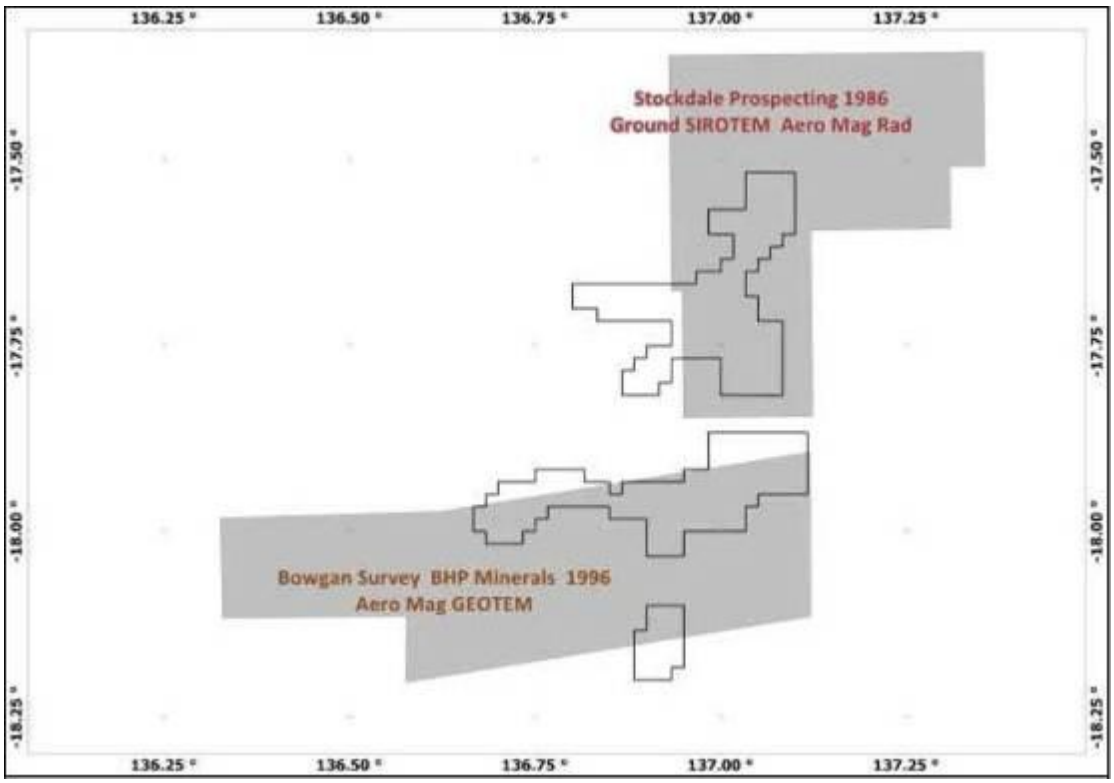


Figure 18 Openfile Geophysics Data available October 2010.

7 Discussion

The Murphy Inlier has recently received increased attention from the Northern Territory Geological Survey. As reported at this year's Annual Geoscience Exploration Seminar:

"Acknowledging insufficient understanding of the geology and mineral potential of the Murphy Inlier region, NTGS has embarked on a project addressing the key knowledge gaps. The project will involve 1:100k mapping of Nicholson River Special (incorporating Nicholson River and part of Benmara), structural work on relationships between the Murphy Inlier basement and surrounding younger geological units, and a reassessment of the mineral potential of the region. Mapping of Nicholson River Special is expected to provide new geochronological and stratigraphic data, allowing better correlations with other parts of the NAC. It will also include a structural study, which will concentrate on:

• detailed mapping of faults along the basement/ Westmoreland Conglomerate contact and their relationships to uranium mineralisation (initial work completed in 2009 indicates that structurally controlled uranium mineralisation may depend on the direction of faulting/jointing)

• structural mapping of the thrust contact between the basement and Westmoreland Conglomerate to establish the relative age of thrusting (there is an 'outlier' of horizontally bedded Westmoreland Conglomerate and Seigal Volcanics overlying the Murphy Inlier. This indicates that there was a previously unrecognised uplifting event after deposition of the Seigal Volcanics)

• Assessment of depth to the basement unconformity north of the Murphy Inlier. Along its lower contact, the nearly vertical Westmoreland Conglomerate is thrust against the Palaeoproterozoic basement. Further from the contact, its dip rapidly changes to horizontal and the unconformity gradually submerges into the subsurface.

Establishing the depth to the unconformity and detecting reduced rock packages in the basement may result in new plays for uranium exploration." (From: Wygralek A.S., AGES 2010.)

Accordingly, more detailed and improved geological mapping should become available for the area covered by the tenements in the future.

Westmoreland Conglomerate (Ptw) and Bukalara Sandstone (Clb)

The Bukalara Sandstone has been confirmed as flat lying to shallow folded. Mapped extents of Bukalara Sandstone (–Clb, Pu) and Westmoreland Conglomerate (-Ptw) available from 1:250k scale published geology maps are shown to be inaccurate in some places. Revised lithological boundaries have been determined from enhanced satellite image, airborne geophysics analysis and field mapping. There remains considerable scope for field mapping of the belt of exposures of Westmoreland Conglomerate trending north-west along the northern side of Coanjula Creek and it is likely that further extensions to outcrop will be observed at that scale. There are potentially confusing similarities between Bukalara Sandstone and Westmoreland Conglomerate as may be seen by comparing G5 and G23. Generally the thickness of Bukalara Sandstone in the abovementioned belt seems to be reduced allowing underlying Westmoreland Conglomerate to be partially exposed and increased iron oxide / laterite development. This may be a result of basement highs during deposition of the Bukalara Sandstone unit which is reported as ranging between 60 metres at its thinnest and 300 metres in the southern Mount Drummond sheet.

Drillhole BEN-SD60 referred to (incorrectly as BND1) in a September 2005 shareholder update released by Crescent Gold Ltd. is described as "*drilled by Afmeco in 1981, confirmed the presence of the unconformity between the granite (potential source) and favourable stratigraphy (sediments) at a relatively shallow (<100m) depth.*" Crescent Gold are currently reporting on their website that, "*An airborne electromagnetic (AEM) survey was completed over EL 24837. The area has potential for unconformity style uranium deposits and the AEM survey is designed to map the prospective unconformity and uranium-trapping lithologies and structures*". And "*As announced to the ASX on 30 June 2009, the Calvert Hills project has successfully applied for funding in the latest round of NT government grants to help advanced frontier minerals exploration projects. The joint-venture (with Southern Uranium) has been allocated $75,000 as a contribution towards the drill testing uranium targets. Diamond and RC drilling will commence later this year testing geophysical anomalies and geological targets in the covered extensions of the Westmoreland uranium field.*" This information confirms recent uranium drill targets a short distance along strike to the north-west in the adjacent EL 24837.

Anomaly 1 - Area 3

Anomaly 1 is reported as an exposed vein hosted deposit measuring 150 metres in length and 40 metres in width. These dimensions were not observed in the recent field visit. The vein exposure is very limited and earthworks for drill rig access have been overzealous to the extent that the original "vein" exposure has been obliterated. Nearly all the uranium rich rocks on the surface have been dozed into rows at the edge of a large pad that is now scoured by erosion. The drainage channel downstream carries high gamma values (400+ cps). The access track made to the site from the west actually cuts parallel through a drainage channel for some hundreds of metres and now forms one of the deepest channels in the braided creek. On one hand it makes finding these places much easier but the environmental disturbance caused is quite unnecessary. A "blade just off the ground" and common

sense approach to avoiding potential high erosion areas are best practice. In contrast to the reported vein position and orientation, the airborne radiometric uranium anomalism follows the approximate contact between Murphy Metamorphics and Nicholson Granite trending to the south-east for over 400 metres. Rock chip samples collected by Lagoon Creek Resources along this trend contained uranium concentrations up to 68 ppm. Figure 19 below "Anomaly 1 and south east Trend" shows the extent of exploration carried out in the vicinity of Anomaly 1 to date. Despite the area having been examined by several companies, six drillholes and a significant number of soil and rock chip assays, there still exists considerable scope for further examination.

Area 4

Exploration of Area 4 was very brief with observations being made in close proximity to access tracks. Large areas of this part of the tenement are only accessible by overland travel.

The 1:250,000 scale Geology Map for Calvert Hills has been updated in digital form in 1996. The digital overlays used on the above images show some alterations to the earlier 1987 version depicted in Figure 4. In view of the significant structures visible in the aeromagnetics and associated radiometric uranium anomalism described above, further examination of these areas is considered to be worthwhile. Drillhole RN026815 drilled by the NTGS is reported as containing gold but the amount is unclear.

Area 5

Initial reconnaissance planning anticipated a traverse covering the western contact of Murphy Metamorphics with unconformable sediments. Further investigation after returning from the field has revealed a more recent version of the published 1:250,000 scale Geology Map for this area is available and that it contains recent updates and changes to the stratigraphy. What had initially been considered to be Murphy Metamorphics in a more westerly position than mapped, is in fact, sheared Buddycurrawa Volcanics to the west of the Murphy Metamorphics. In view of the recent publication of these changes to the map in this area, it is likely a high level of reliability exists in the mapping now available. Rocks to the west of the Murphy Metamorphics, previously mapped as Constance Sandstone and Benmara Beds (both given minimum ages of 1400Ma) are now mapped as Breakfast Sandstone and Buddycurrawa Volcanics. These newly described (2006) units are given ages of between 1600 and 1800 Ma. Additionally, there are mapped changes to the fault positions with favourable positions cutting across the unconformity. The most westerly point of the traverse ended at the approximate intersection of two north westerly trending faults. Significant deformation (shearing) is evident. Coarse airborne radiometric data (The Radiometric Map of Australia Dataset) reveal significant, apparently fault (dilational?) related, uranium anomalies in the north east of the tenement and to a lesser extent along strike in the centre and south. Buddycurrawa Volcanics are described as containing immature sandstone and conglomerate, mature sandstone and trachyte. Drillholes MD3 and 4 may provide useful information on composition of Crow Formation and Buddycurrawa Volcanics. There may also potentially be detailed mapping in associated company reports.

8 Conclusion and Recommendations

All of the areas of interest covered in this report require further investigation. The northern areas 1 and 2 require additional reconnaissance to better define and potentially extend the outcrops of Westmoreland Conglomerate identified from imagery. Additional traverses of the Bukalara Sandstone although time consuming will add to the knowledge of fold geometry and thickness.

The small area of granite shown on the map on the north side of Coanjula Creek has a very low potassium, high thorium response in airborne radiometric data which should be investigated and interpreted lineaments should be field checked.

Area 3 demonstrates substantial potential for further work. Previous exploration data in openfile company reports should be examined for the area with particular attention to the drilling and any mapping. Detailed mapping should be updated or produced for the entire area covered by higher order anomalies in conjunction with extended rock chip sampling. This should be accompanied by a ground spectrometer survey to better define the anomalies and granite boundaries. Favourable structural / reducing lithology locations along the anomalous south-east trend may offer potential for drill testing.

Access into much of Area 4 is difficult apart from the Nicholson River and Buddycurrawa roads. Substantial faults evident from existing mapping and from image interpretation are a good distance from these roads and although, for the most part no substantial airborne radiometric uranium anomalies occur, these structures should be field checked as time permits. Of greater interest is a weak area of anomalism coincident with a major east-west structure described in section 5.3 above. This area requires field checking and potentially mapping and sampling.

In light of the aforementioned alterations to the stratigraphy in Area 5, potential for uranium mineralisation may be enhanced by the presence of volcanics. The Buddycurrawa volcanics should be examined in greater detail. Access to this part of the tenements is particularly difficult and only brief reconnaissance was possible, but encouraging. The presence of an airborne radiometric uranium anomaly in the northern part of this area requires field checking. It is coincident with major NNW trending faults (possible flexure zone) in the middle of an area mapped as Buddycurrawa Volcanics.

Access tracks need to be constructed into several areas to facilitate the exploration activities suggested above as overland travel is very time consuming and helicopter access would be an expensive option given the scope of the work anticipated. A grader contractor named John Mora was working in the area during this visit and may be available to provide track clearing in the future. Contact: C/- Sheri, Tel. 08 8972 1696 (Katherine, N.T.).

Ernie Holt does have a two seater helicopter available for hire at a rate of $400 per dry hour.

A strong effort was made in fostering an improved relationship with the landholders. Ernie Holt, though at first reserved, ended up being very helpful and friendly. His wife June and Andrew (son?) were very friendly from the beginning and enjoyed having new faces to talk to.

Fuel is a problem. We used all our fuel (275 litres) and only had about 10 litres left by the time we reached the nearest refuel point. Haines Surveys crew ran out of fuel close to Barkly Homestead. It is recommended an attempt be made to buy fuel from Benmara with a prepaid reserve set aside (ordered in advance of field season).

Alternatively an attempt to store drum fuel (transported by truck) at Benmara should be made with reasonable notice given prior to expected requirements.

9 References

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APPENDIX 2
Satellite Mapping Interpretative Geological Map

APPENDIX 3
Haines Surveys – Gravity Survey Report, October 2010

APPENDIX 4
ASCII Format gravity data