

KETTLE ROSE PTY LTD

ACN 119 016 330

**VICTORIA RIVER DOWNS PROJECT
NORTHERN TERRITORY**

EXPLORATION LICENCE NUMBER 25541

FINAL REPORT

FOR THE PERIOD

19 JULY 2007 TO 22 JUNE 2009

BY

B.WHITE

DUE DATE: 22 SEPTEMBER 2009

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Distribution:

Dept Resource Development, Primary Industry, Fisheries and Resources, Darwin
Kettle Rose Pty Ltd, Melbourne

TENEMENT REPORT INDEX

COMPANY / OPERATOR:	Kettle Rose Pty. Ltd.
PROJECT:	Victoria River Downs
TENEMENT:	EL25541
REPORTING PERIOD:	19 July 2007 to 22 June 2009
AUTHOR:	B.White
DUE DATE:	22 September 2009
STATE:	Northern Territory
LATITUDE:	16°14'00"S to 16°20'00"S
LONGITUDE:	130°47'00"E to 130°53'00"E
MGA mN:	8,193,300mN to 8,204,400mN
MGA mE:	690,600mE to 701,200mE
1:250,000 SHEET:	SE52-04 Victoria River Downs
1:100,000 SHEET:	5065 Humbert
MINERAL DISTRICT:	Victoria River Downs
COMMODITY:	diamonds, base metals
KEY WORDS:	

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1. SUMMARY OF EXPLORATION ACTIVITIES

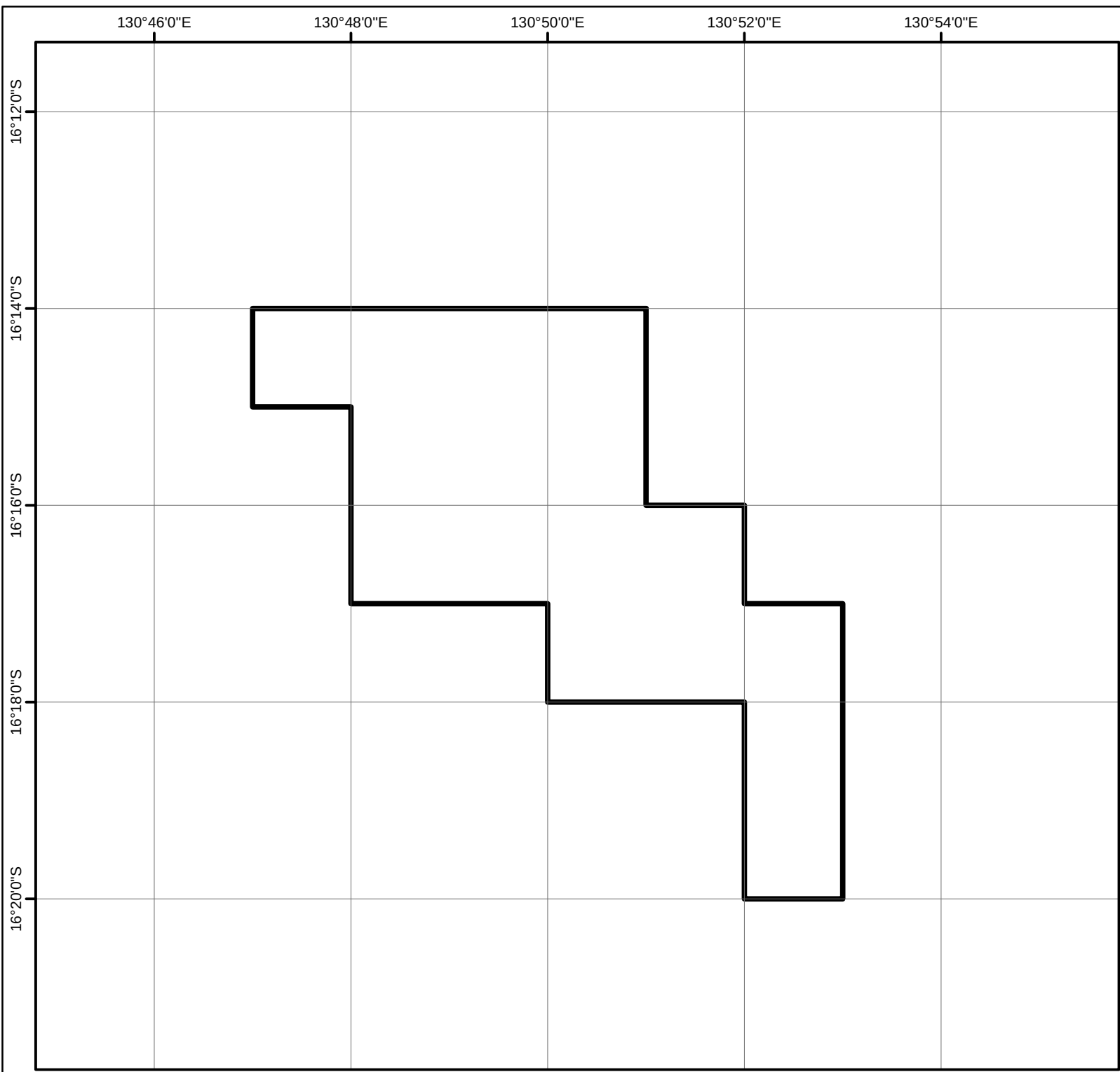
This report describes the exploration activities conducted over tenement EL25541 between the 19th of July, 2007 and the 22nd of June, 2009 (Figure 1). Over the life of the tenement, exploration activities included literature and data reviews as well as a target generation exercise. No field based exploration was conducted over the tenement.

2. TENEMENT STATUS

Exploration Licence 25541 was granted to Kettle Rose Pty. Ltd. on the 19th of July, 2007 and surrendered on the 22nd of June, 2009.

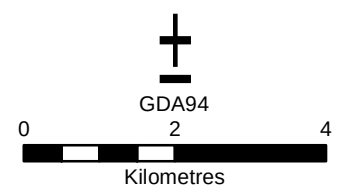
3. LOCATION AND ACCESS

Exploration Licence 25541 is situated approximately four hundred and thirty kilometres South of Darwin, Northern Territory, and twenty kilometres North West of the Victoria River Downs homestead (Figure 2). The tenement is situated approximately half way along the Buchanan Highway between Timber Creek and the Top Springs roadhouse. Timber Creek is a small township of approximately seventy people, and is located eighty kilometres to the North of the tenement, while the Top Springs road house is one hundred and ten kilometres to the east. The tenement can be reached by vehicle from Darwin via Katherine along the Stuart Highway then along the Victoria Highway to Willeroo. From Willeroo, two routes can be taken to reach the tenement. One route continues west along the Victoria Highway then south along the Buchanan Highway, the intersection of the highways is approximately one hundred and thirty kilometres from Willeroo. The Buchanan Highway can also be reached by heading South along the Delamere Road towards the Top Springs roadhouse, one hundred and seventy kilometres from Willeroo. The roads from Darwin to Timber Creek and Top Springs are sealed, in good condition and provide easy access for all vehicle types. The Buchanan Highway is an unsealed road that is in good condition; however it is infrequently travelled and may be of questionable quality in places. Four wheel drive vehicles are recommended when travelling in this area. Extra water, fuel and supplies are necessary as fuel stops in the region are few and widely separated. The tenement is situated west of the Buchanan Highway, and can be reached by cross country travel using four wheel drive vehicles. The terrain is rugged; plateaux and mesas can reach one hundred metres above the surrounding terrain providing a significant obstacle to navigation. Access to much of the tenement may only be possible with helicopter support.



Legend

 Tenement boundary

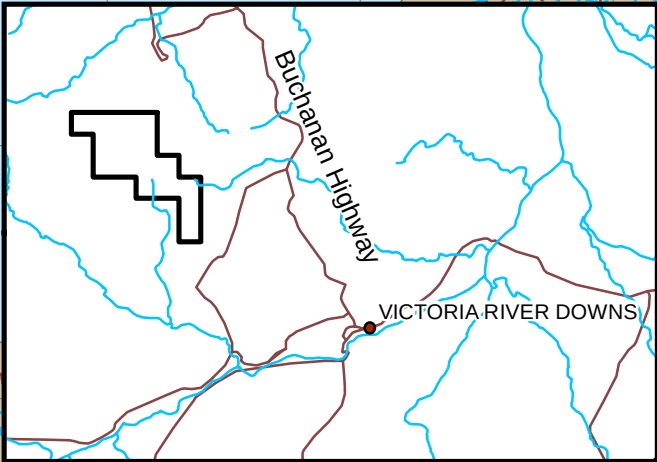
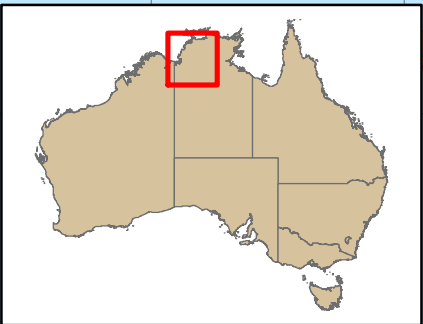
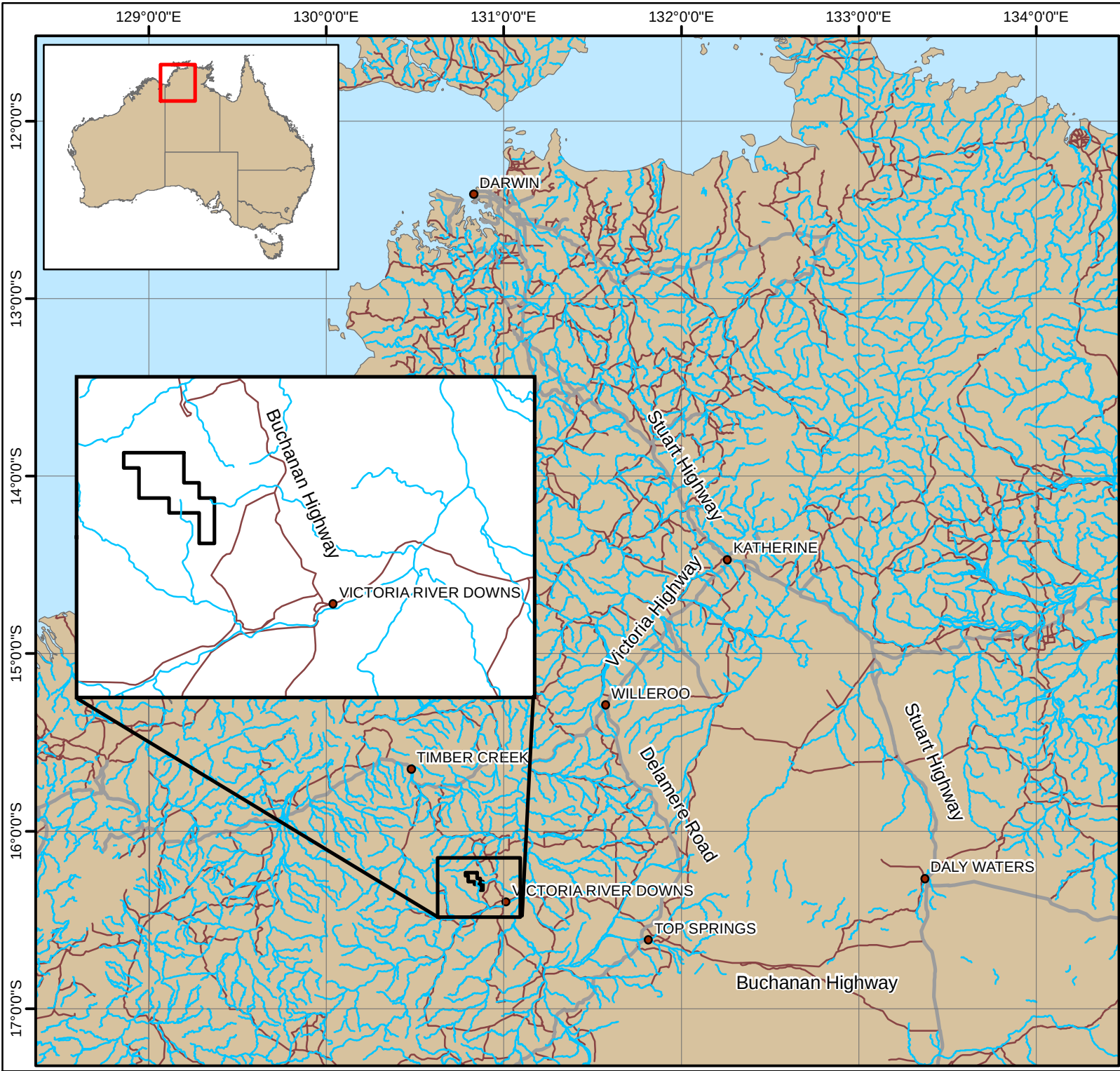


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**EL25541
Geology**

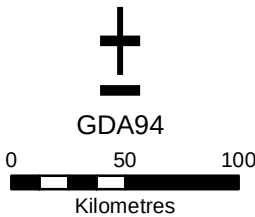
Date: 13/07/09	Author: BW	Figure: 1
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Legend

-  Tenement boundary
-  Population centres
-  water courses
-  Unpaved roads
-  Paved roads



Kettle Rose Pty. Ltd.

EL25541 Location Plan

Date: 13/07/09	Author: BW	Figure: 2
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4. GEOLOGY

4.1 REGIONAL GEOLOGY

The following description of geology has been adapted from Beier, Dunster, Cutovinos, and Pietsch (2002)

The tenement is located within the Victoria Basin. The Victoria Basin is underlain by the Birrindudu Basin and overlain by the Wolfe Creek Basin and contains several thousand metres of sediments that are divided into the Wattie, Bullita, Tjunna and Auvergne Groups.

The depositional age of the Victoria Basin is poorly constrained by geochronology. A possible correlation with the Nathan Group of the McArthur Basin suggests that the Wattie and Bullita Groups were deposited between 1.61-157Ga. A minimum depositional age of 1.46Ga has been inferred from the emplacement of kimberlite into the Bullita Group, however a younger emplacement age of 179 ± 2 Ma has been reported and the older date probably represents a deep lithospheric magmatic event.

The Wattie Group is the basal unit of the Victoria Basin, and is a predominately siliciclastic succession containing minor carbonate intervals and rare tuffite. Divided into seven units, the lower units are best exposed in scarps and low relief ridges, and the remaining units are found in valley floors or are poorly exposed as pavements on terraced slopes. The Wattie Group can vary in thickness up to four hundred and fifty metres, and the regional thickness variations characterise the stratigraphy of the unit.

The Bullita Group comprises five formations that can be distinguished from the underlying Wattie Group due the higher carbonate content of the Bullita sediments.

The Tjunna Group comprises two formations of sandstone and mudstone assemblages and can be difficult to differentiate in outcrop due to the similarity in appearance of the shale facies. The group is typically poorly exposed as scree over subcrop in slopes adjacent to areas capped by the Jasper Gorge Sandstone. Locally the Tjunna Group forms ridges, mesas and low relief plateaux.

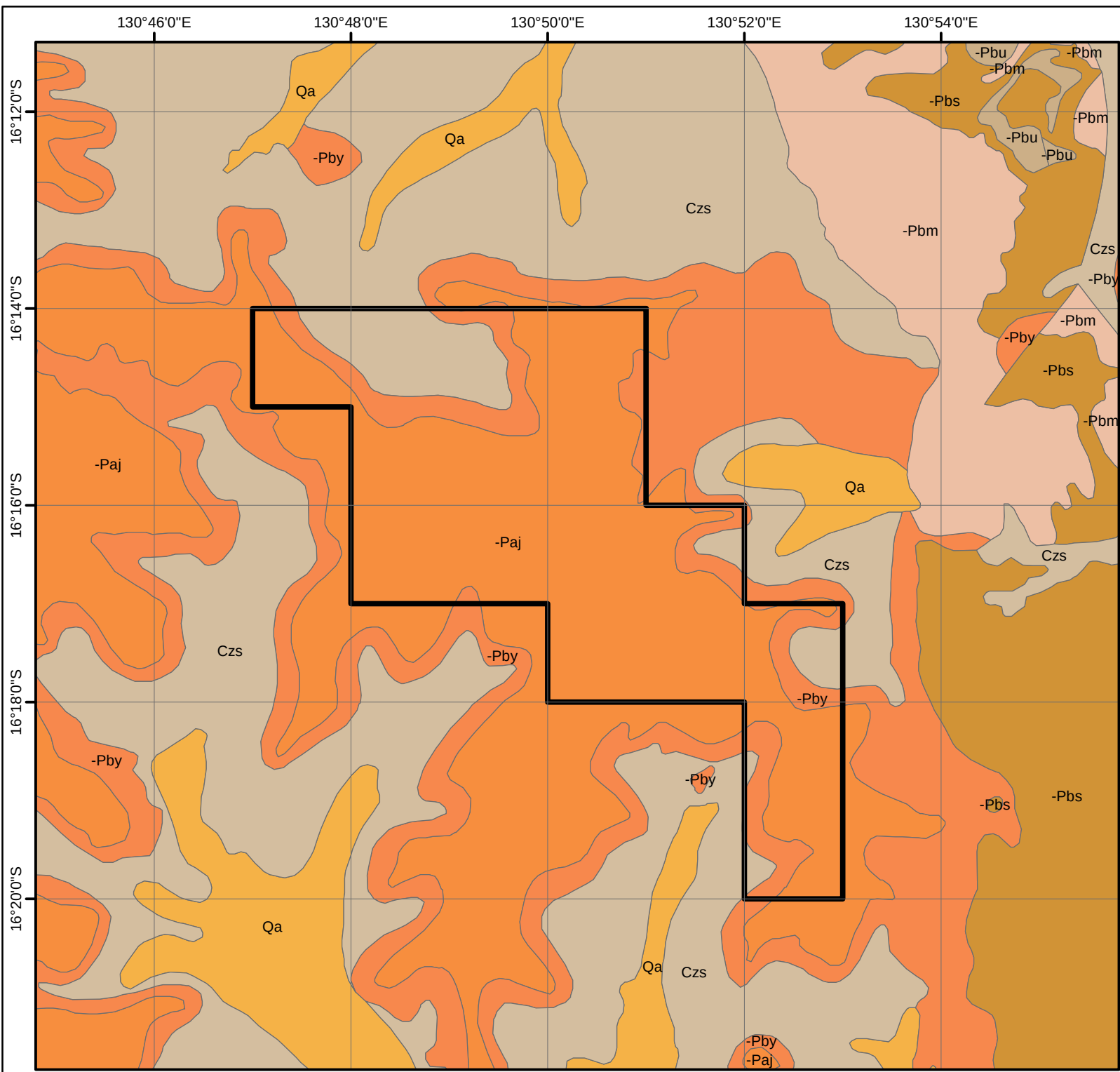
The Auvergne Group comprises seven formations, of which only the Jasper Gorge Sandstone is exposed in the region surrounding the tenement. The group can exceed nine hundred metres in thickness. The Auvergne Group overlies the Wattie, Bullita and Tjunna Group rocks with a low angle unconformity and is unconformably overlain by the Antrim Plateau Volcanics.

4.2 LOCAL GEOLOGY

Rocks of the Auvergne and Bullita Groups are exposed within the tenement. The topography of the tenement is dominated by a plateau rising more than one hundred metres above the surrounding terrain (Figure 3).

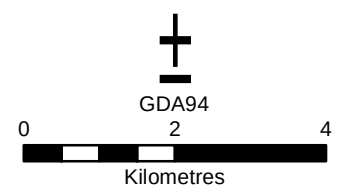
The Bynoe Formation of the Bullita Group is the basal unit exposed within the tenement. The dolomitic sandstone and siltstone sequence forms dissected terraced subcrop in scree slopes capped by the Jasper Gorge Sandstone. The Bynoe Formation is approximately two hundred and forty metres in thickness. The lower part of the formation contains low angle and small scale trough cross beds, ripple cross laminae and casts after halite. The upper most part of the formation contains minor laminated, dolomitic siltstone and mudstone characterised by evaporite pseudomorphs, mudcracks and other shallow water depositional indicators. The upper and lower units comprise interbedded sandstone, siltstone, mudstone and minor doloarenite, and were deposited under a current influenced, shallow marine environment which included subaerial exposure and brine logging of the sediment. A high intertidal setting has been suggested as a likely depositional environment. The remainder of the Bynoe Formation consists of medium to very thickly bedded, homogeneous, fine dolomitic sandstone containing low angle and trough cross strata, mudclasts, ripple cross laminae and diagenetic reduction spots. The middle unit is indicative of an overall deepening and thickening of the basin succession. Deposition may have occurred under low energy, deep marine conditions, however a deeper marine environment below the storm wave base has been suggested.

The Jasper Gorge Sandstone of the Auvergne Group dominates the topography and surficial geology of the tenement. The sandstone forms extensive plateaux and mesa caps, and is best exposed in cliff sections that can reach eighty metres in thickness. One such plateau forms the dominant landform on the tenement, rising up to one hundred metres above the surrounding terrain. The sandstone is differentially weathered and friable, and is poorly preserved as blocks and flaggy rubble. The Jasper Gorge Sandstone is predominately a medium orthoquartzite, containing rare granular lags, subordinate conglomerate and rare lenses of siltstone and mudstone. The sandstone contains trough and low angle cross stratification, scour surfaces, mudclasts, and scattered quartzite and chert pebbles. The depositional environment is considered to be near shore, shallow marine conditions during a regional transgressive event.



Legend

- Tenement boundary
- Paj *Massive and blocky medium friable quartz; minor siltstone, pebbly sandstone*
- Pbm *Massive pink laminated and brecciated chert*
- Pbs *Massive and blocky grey fine and medium crystalline dolomite; minor dolomitic siltstone and sandstone, chert.*
- Pbu *Extremely massive dark grey medium crystalline dolomite; minor finely crystalline dolomite; persistent stromatolite band at top.*
- Pby *Interbedded reddish brown and greyish green dolomitic siltstone; grey dolomitic sandstone and dolomite*
- Czs *Sand, soil, colluvium, travertine*
- Qa *Gravel, sand, silt: alluvium*



Kettle Rose Pty. Ltd.

EL25541 Geology

Date: 13/07/09	Author: BW	Figure: 3
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5. EXPLORATION

Exploration conducted over EL25541 during the life of the tenement was limited to literature and data reviews as well as a target generation exercise. No field based exploration was conducted over the tenement. The remote location combined with the difficult terrain pose a significant challenge in the execution of any exploration programme. No exploration targets were identified in the literature review that have the potential to host significant deposits of base metals or diamonds. Any deposit in the area would have to be of sufficient size to warrant a stand alone mining operation, and little potential exists for such a deposit to be located within the tenement boundary.

6. CONCLUSION

The remote location and the difficult terrain of the tenement make exploration in the area prohibitively expensive. The tenement would also have to host significant base metal or diamond deposits to warrant a stand alone mining operation. No such deposits are believed to exist. Due to the nature of the tenement and the perceived high cost of exploration, a recommendation was made to relinquish the ground. The tenement was surrendered on the 22nd of June, 2009.

7. BIBLIOGRAPHY

Beier, P.R., Dunster, J.N., Cutovinos, A. and Pietsch, B.A. 2002. *Victoria River Downs, Northern Territory (second edition) Sheet SE52-4. 1:250,000 geological map series explanatory notes.* Northern Territory Department of Business, Industry and Resource Development. Darwin.