



PARTIAL RELINQUISHMENT REPORT

FOR
EXPLORATION LICENCE
27705

BIRRINDUDU PROJECT

From
19 July 2010 to 26 May 2016

Holder	ABM Resources NL
Operator	ABM Resources NL
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Target Commodity	Gold
Datum/Zone	GDA94/ MGA Zone 52
250,000 mapsheet	Tanami (SE52-15),
100,000 mapsheet	Mallee (4759), Breaden (4859)

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FILE	DESCRIPTION
EL27705_2016_P_01.pdf	Partial relinquishment report

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1.0 ABSRACT

The relinquished area of **EL27705** formed part of the ABM Resources NL (ABM) Birrindudu Project, which currently comprises Exploration Licences 5889, **27705**, 28326, 28560, 28566, 29181 and 29182. These tenements were amalgamated for group reporting to GR 163.

The Birrindudu Project is located approximately 250km east-southeast of Halls Creek, in the north-western portion of the Tanami Desert (**Figure 1**). ABM explored these tenements for the potential of gold mineralisation.

In May 2016 ABM reviewed its overall tenement situation and concluded to relinquish 13 of the 42 blocks of **EL27705**.

Over the 5 years of term no on ground exploration was completed. The relinquished area of **EL27705** was surrendered due to the absence of or limited geochemical response and is deemed less prospective than surrounding blocks based on their geophysical signature.

2.0 INTRODUCTION

The Birrindudu Project is located approximately 250km east-southeast of Halls Creek, in the northwestern region of the Tanami Desert (**Figure 1**). Access from Halls Creek is southeast via the unsealed Tanami Highway for approximately 320km to the Tanami Mine, then 80km north along the Lajamanu (Hooker Creek) Road to the Suplejack Downs homestead, then 40km northwest using station tracks. Access from Alice Springs is northwest via the Tanami Highway for approximately 700km until the Lajamanu turnoff.

This report covers exploration from the 19 July 2010 to 26 May 2016 in respect of the 13 surrendered blocks of **EL27705**.

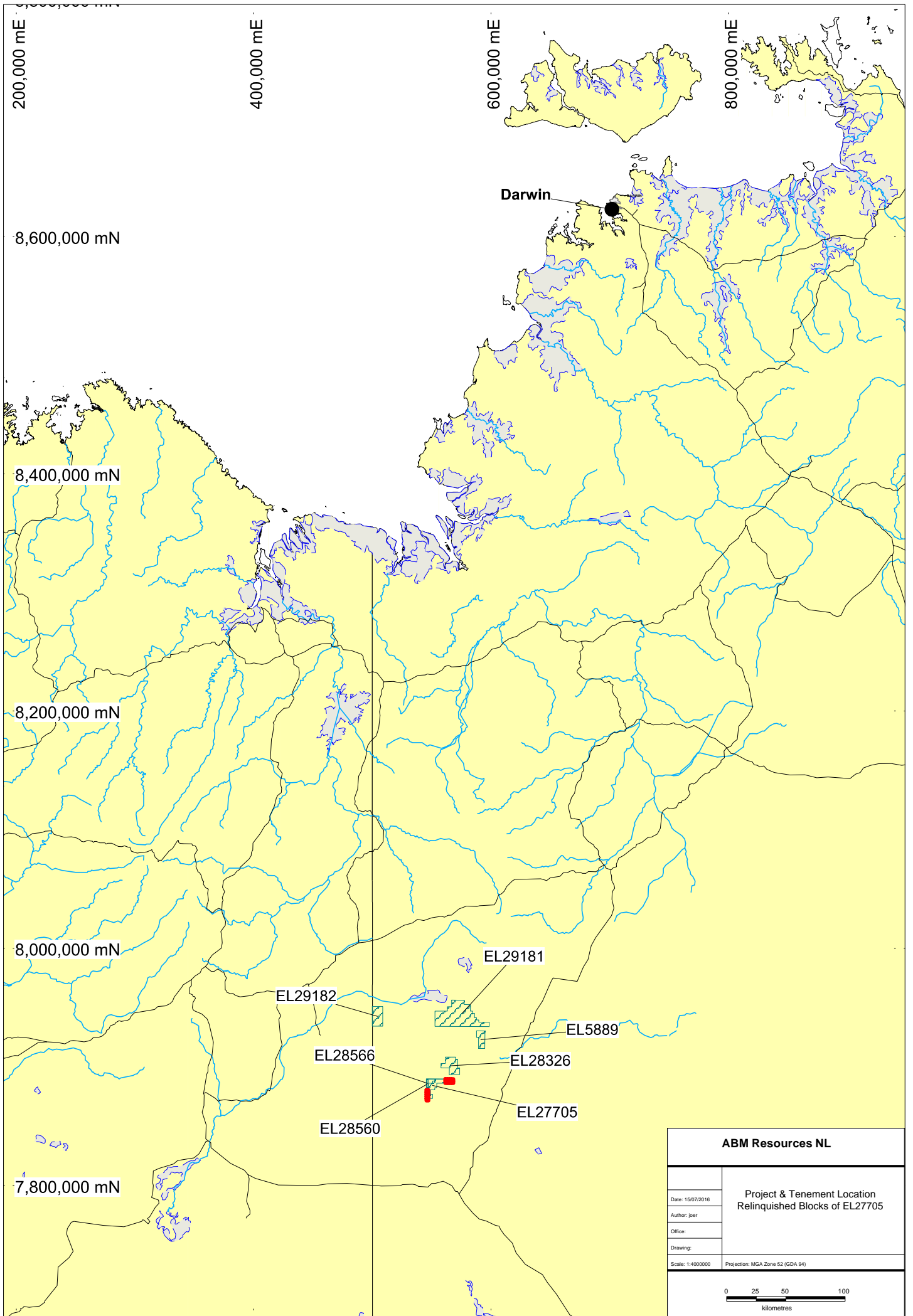
3.0 TENURE

EL27705 forms part of ABM's Birrindudu Project, which comprises seven Exploration Licences; EL5889, **27705**, 28326, 28560, 28566, 29181 and 29182.

A partial surrender in respect of 13 blocks of **EL27705** was lodged on 11 May 2016 following issue of a Partial Cancellation Notice for non-expenditure on 8 April 2016 and became effective from 26 May 2016.

On the 9 December 2009, ABM Resources NL acquired EL5888, 5889 and 8809 from Tanami Exploration NL, a wholly owned subsidiary of Tanami Gold NL (TGNL) together with a group of other tenements. The tenements were registered in the name of ABM on the 7 April 2010. They formed the first tenements of the project group.

In 2010 ABM applied for the adjoining **EL27705** with grant occurring on the 19 July 2010. On the 15 November 2011 **EL27705** was approved to be amalgamated with ABM's Birrindudu Project group reporting number GR – 163/10 comprising already EL5888, 5889 and 8809.



EL27705 tenement details are shown in Table 1 and are illustrated in Figure 1 and 2.

Table 1 Tenement Details

Tenement No	Tenement Name	Blocks Relinquished	Blocks Retained	Grant Date	Expiry	Relinquishment Date
EL27705	Mallee Breaden	13	29	19 Jul 10	18 Jul 16	26 May 16

Relinquished blocks are listed in Table 2.

Table 2 List of Relinquished One Minute Graticular Blocks of EL27705.

BIM	Blocks	Block Identifier	
SE52	2708	A, B, C, D, F,G, H, J	8
SE52	2778	B, G, M, R, W	5
		TOTAL	13

4.0 GEOLOGY

The Tanami Region comprises a package of Neo-Archaean to Meso-Proterozoic rocks, dominated by multiply deformed Palaeoproterozoic metasediments and felsic and mafic intrusives. It forms part of the North Australian Craton, separating the Palaeoproterozoic Halls Creek and Arunta Orogens. Collectively the region has a gold endowment in excess of 12 million ounces, and to date is recognised as one of the world's most fertile Palaeoproterozoic gold provinces (TENL, 2005). The regional geology of the Birrindudu project area is shown on Figure 3.

The Tanami Region has been divided into a number of stratigraphic packages.

ARCHAEAN

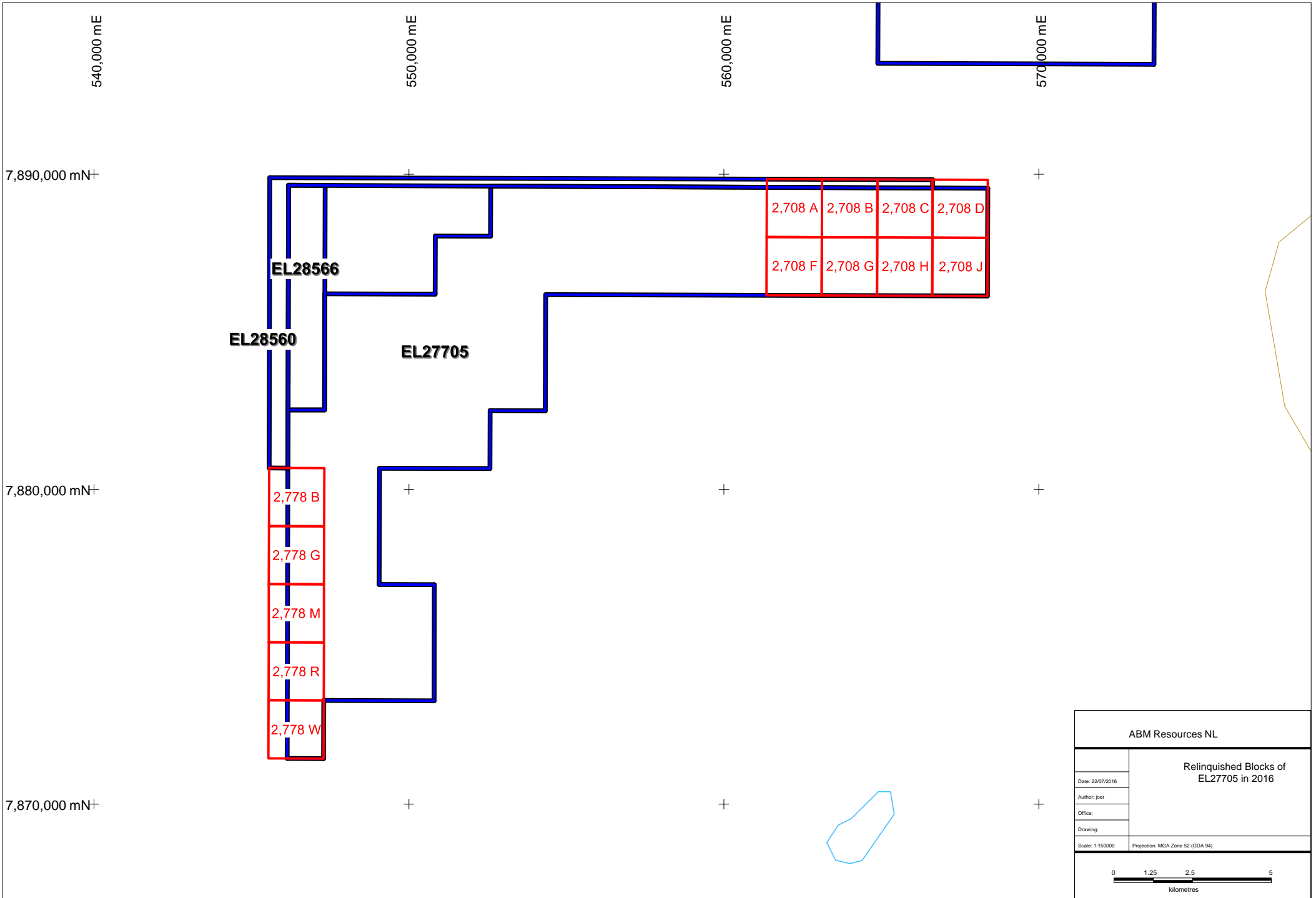
Basement

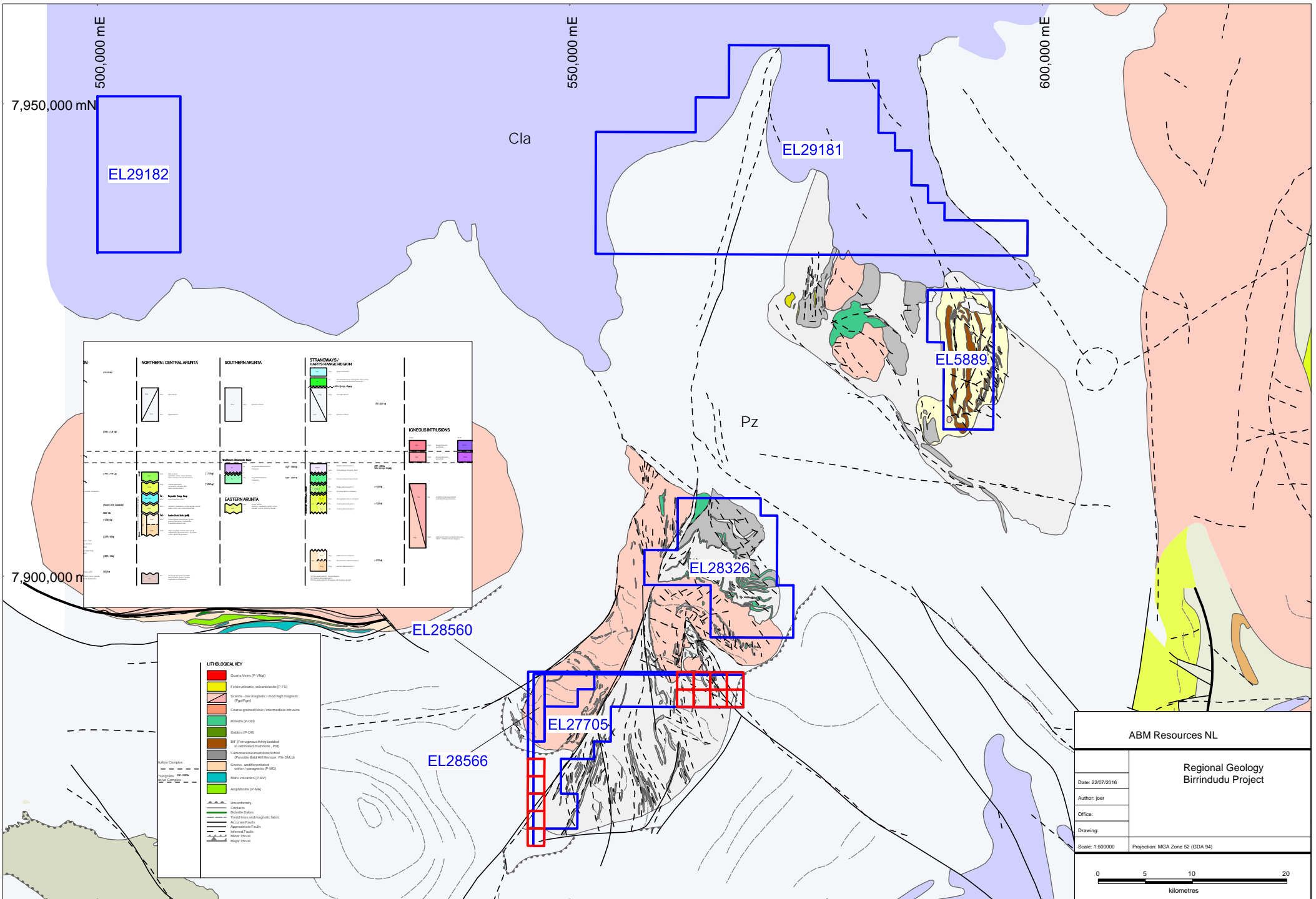
The presence of Archaean basement has been noted in drill core and in a single area of outcrop south east of the Granites mine. Rocks in this area, known as the Billabong Complex, contain banded granite and gneisses. SHRIMP zircon U-Pb dating of these rocks gives an age of 2514±3 Ma. Recent review of this outcrop suggests this age constraint may have sampled Archaean xenoliths within a Proterozoic gneiss.

PROTEROZOIC

Tanami Group

The Tanami Group unconformably overlies Archaean basement. Currently the Tanami Group is subdivided into two separate formations – the Dead Bullock Formation and the conformably overlying Killi Killi Formation (Wygralak et. al., 2004). Work undertaken by Bagas (pers. comm. 2007) suggests an additional subdivision to the Tanami Group, namely the Stubbins Formation.





500,000 mE
7,950,000 mN

550,000 mE

600,000 mE

EL29182

EL29181

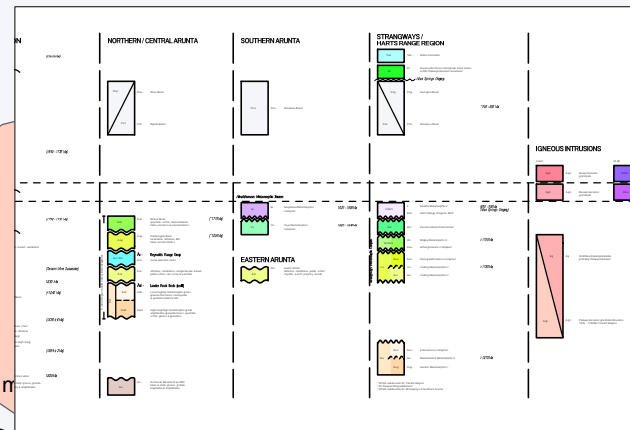
EL5889

EL28326

EL27705

EL28560

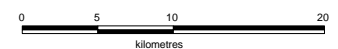
EL28566



LITHOLOGICAL KEY

[Red]	Quartz veins (P-VHq)
[Yellow]	Felsic volcanic, volcanoclastic (P-FV)
[Orange]	Granite, low magnesian / mid-high magnesian (P-grn)
[Light Green]	Chlorite-garnet schist / intermediate intrusion
[Dark Green]	Diorite (P-DC)
[Light Blue]	Gabbro (P-GC)
[Dark Blue]	Basalt (P-BV)
[Light Purple]	Amphibolite (P-AM)
[Green]	Unconformity
[Red]	Contact
[Green]	Distalite Dykes
[Blue]	Transverse and magmatic faults
[Red]	Accurate Faults
[Blue]	Approximate Faults
[Red]	Inferred Faults
[Blue]	Minor Thrust
[Red]	Major Thrust

ABM Resources NL	
Regional Geology Birrindudu Project	
Date: 22/07/2016	
Author: jper	
Office:	
Drawing:	
Scale: 1:500000	Projection: MGA Zone 52 (GDA 84)



The Stubbins Formation is currently interpreted to be the oldest unit within the Tanami Group recently constrained by a ca. 1864 Ma SHRIMP zircon U-Pb date from an intrusive unit (Bagas et. al., 2007). The Stubbins Formation occurs as a ~200 m thick succession of iron-rich siltstone, graphitic and carbonaceous shale, banded and nodular chert, siltstone, basalt, dolerite sills and rare turbiditic sandstone (wacke), and a 2 to 3 km-thick lower succession of interlayered sandstone, pelite, and dolerite sills (Bagas et. al., 2007b).

The Dead Bullock Formation is interpreted to be stratigraphically above the Stubbins Formation, constrained by a SHRIMP U-Pb zircon age of ca 1838 Ma from a tuffaceous unit within the Callie Member (Bagas et. al., 2007a and references therein). The Dead Bullock Formation is further subdivided into two separate members – the lower Ferdies member and the overlying Callie member. The Ferdies member comprises a fining upward package of thinly bedded carbonaceous sandstone and siltstone. The Callies member comprises chemical sediments, silicate facies banded iron formation, calc silicate and cherts in a siltstone dominated package. Bands of chert nodules are common. The upper contact of the Dead Bullock Formation is considered gradational into the Killi Killi Formation (Lambeck, 2004).

The Killi Killi Formation is composed of poorly sorted sandstones with substantial detrital mica component. The formation is interpreted to be a 4000 m thick turbidite package (Wygralak et. al., 2004). Currently the age of the Killi Killi Formation is constrained by the ca. 1838 Ma age of the Dead Bullock Formation and the ca. 1820 Ma age of volcanic rocks overlying the Killi Killi Formation (Bagas et. al., 2007a).

Doleritic sills cross cut both Dead Bullock and Killi Killi Formations. Peperitic textures are locally developed indicating emplacement synchronous with deposition.

Tanami Group rocks were subjected to the 1835-1825 Ma Tanami Orogeny. This involved disharmonic and angular folding combined with regional metamorphism to greenschist and locally, amphibolite facies (Bagas et. al. 2007a).

Ware Group

Rocks of the Ware Group are currently interpreted to unconformably overly the Tanami Group. The Ware Group comprises four distinct packages.

Quartz sandstone and granular conglomerate comprise the Mt Winnecke Formation (ca. 1825 Ma). Volcanogenic sandstone interbedded with felsic volcanic rocks comprise a younger package known as the Nanny Goat Volcanic Complex (ca. 1820 Ma). Conglomeratic sandstone, siltstone and fine grained sandstones comprise the Century Formation (1825-1815 Ma) and wacke and siltstone comprise the Wilson Formation (ca. 1815-1800 Ma) (Bagas et. al., 2007a and references therein).

Intrusives of the Birthday Suite are thought to correlate with Ware Group volcanics as interpreted intrusive ages are between 1825 and 1850 Ma. Birthday suite intrusives are generally restricted to the North East part of the Tanami.

Mount Charles Formation

The Mount Charles Formation contains poorly exposed intercalated basalts and fine to coarse turbidite, currently interpreted to have been deposited in a narrow continental rift setting (Wygralak et. al. 2004). The Mount Charles Formation is limited to the western margin of the

Frankenia Dome. It is believed to unconformably overly the Ware Group, and to be unconformably overlain by the Birrindudu Group (Wygralak et. al., 2004).

A further five events of complex deformation are interpreted to have occurred to the aforementioned packages between 1820 and 1790 Ma (Bagas. et. al., 2007a and references therein) although current interpretation suggest the Mount Charles Formation may only have experienced the last event. This series of deformation events was accompanied by broadly synchronous emplacement of Frederick and Grimwade Suite intrusives.

Pargee Sandstone

The Pargee Sandstone consists of a thick bedded quartz arenite, lithic arenite and conglomerate, with a maximum thickness of 1300m (Wyralak et. al., 2004). The unit unconformably overlies the Killi Killi Formation, and is overlain by Gardiner Sandstone of the Birrindudu Group.

Birrindudu Group

The Birrindudu Group occurs as a widespread unconformable blanket across much of the Tanami. It is broken down into four separate units – The Gardiner Sandstone, Supplejack Downs Sandstone, Talbot Well Formation and Coomarie Sandstone. These units include lithic arenites, quartz arenites and conglomerates. Subtle variations make these units distinguishable.

PHANEROZOIC

Antrim Plateau Volcanics comprise the oldest reported Phanerozoic rocks within the Tanami Region. These normally consist of intensely weathered basalt >20 metres thick, capped by pisolitic laterite. The exposures are flat-lying and unconformably overlie the Proterozoic lithologies. (TENL, 2005)

The southern part of the Tanami Region is covered by Permian sandstone and conglomerate of the Canning Basin.

5.0 EXPLORATION COMPLETED

No on ground exploration was conducted on the surrendered tenement areas during the life of the tenement from July 2010 to the 26 May 2016.

Apart from regional desktop studies ABM focused exploration on its Twin Bonanza Project.

6.0 RECOMMENDATION and CONCLUSIONS

In January 2016 an assessment of ABM's overall tenure situation resulted in the surrender of 13 blocks of EL27705.

The proposal was based on the rationale:

- to focus future exploration efforts at this stage on the more prospective, higher on the priorities list targets.

- that no or limited geochemical response and are deemed less prospective than surrounding blocks based on their geophysical signature.

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