

EL32863

Annual Technical Report

for the period

5 April 2022 – 4 April 2023

Title Holder	Pegmatite One Pty Ltd
Project Operator	Zinciferous Limited
Titles/Tenements	EL32863
Report Author	Dr Qingtao Zeng Australasian Metals Limited
Tenement Manager/Agent	AMETS
Grant Date	5 April 2022
Expiry Date	4 April 2028
Report Date	14 June 2023
Target Commodity or Commodities	Lithium, tin and tantalum
Datum/Zone	GDA94/MGA Zone 53
1:250 000 Map Sheet	Mount Peake SF5305
1:100 000 Map Sheet	Conical Hill 5555 Anningie 5554
Contact Details	NT@amets.com.au

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Abstract

This report describes exploration activity conducted over EL32863 during the reporting period from 5 April 2022 to 4 April 2023. EL32863 is one of 21 titles that make up the Zinciferous Project north of Alice Springs. The area has a history of tin prospectivity. Target minerals are lithium, tin and tantalum. During the reporting period Zinciferous conducted field reconnaissance across its tenure package. Hyperspectral survey was conducted across the Zinciferous tenure, and high-quality data was acquired and processed. During the upcoming reporting period Zinciferous intends to investigate and review the results of the hyperspectral survey to determine prospective areas for exploration.

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1 Introduction

This report describes exploration activity conducted over Exploration Licence (EL) 32863 during the reporting period from 5 April 2022 to 4 April 2023. EL32863 is held by Pegmatite One Pty Ltd, and operated by Zinciferous Limited (Zinciferous, or the Company). Pegmatite One Pty Ltd is a wholly owned subsidiary of Zinciferous Limited. EL32863 is one of 21 titles that make up the Zinciferous Project (see Figure 1).

1.1 Location, Physiography and Access

EL32863 is located approximately 240 km NNW of Alice Springs, in the Northern Territory (see Figure 1). It covers 40 blocks, (127.78 km²), over two non-contiguous areas. Access is via the Stuart Highway or Willowra Road, then via a series of unsealed farm tracks. The title lies on relatively flat-lying ground. The southern parts of the title are cut by Murray Creek and Bloodwood Creek, which drain northwards towards the Hanson River (see Figure 2).

1.2 Tenure

EL32863 was granted on 5 April 2022 for a six year term; the title currently has an expiry date of 4 April 2028. Title details are shown in Table 1.

The title overlies parts of NT Portion (000) – Parcel 361, privately owned as Anningie Station, and NT Portion (000) – Parcel 655, privately owned as Stirling Station.

Table 1: Title Details

Title	Holder	Grant Date	Expiry Date	Area
EL32863	Pegmatite One Pty Ltd	05/04/2022	04/04/2028	40 blocks 127.78 km ²

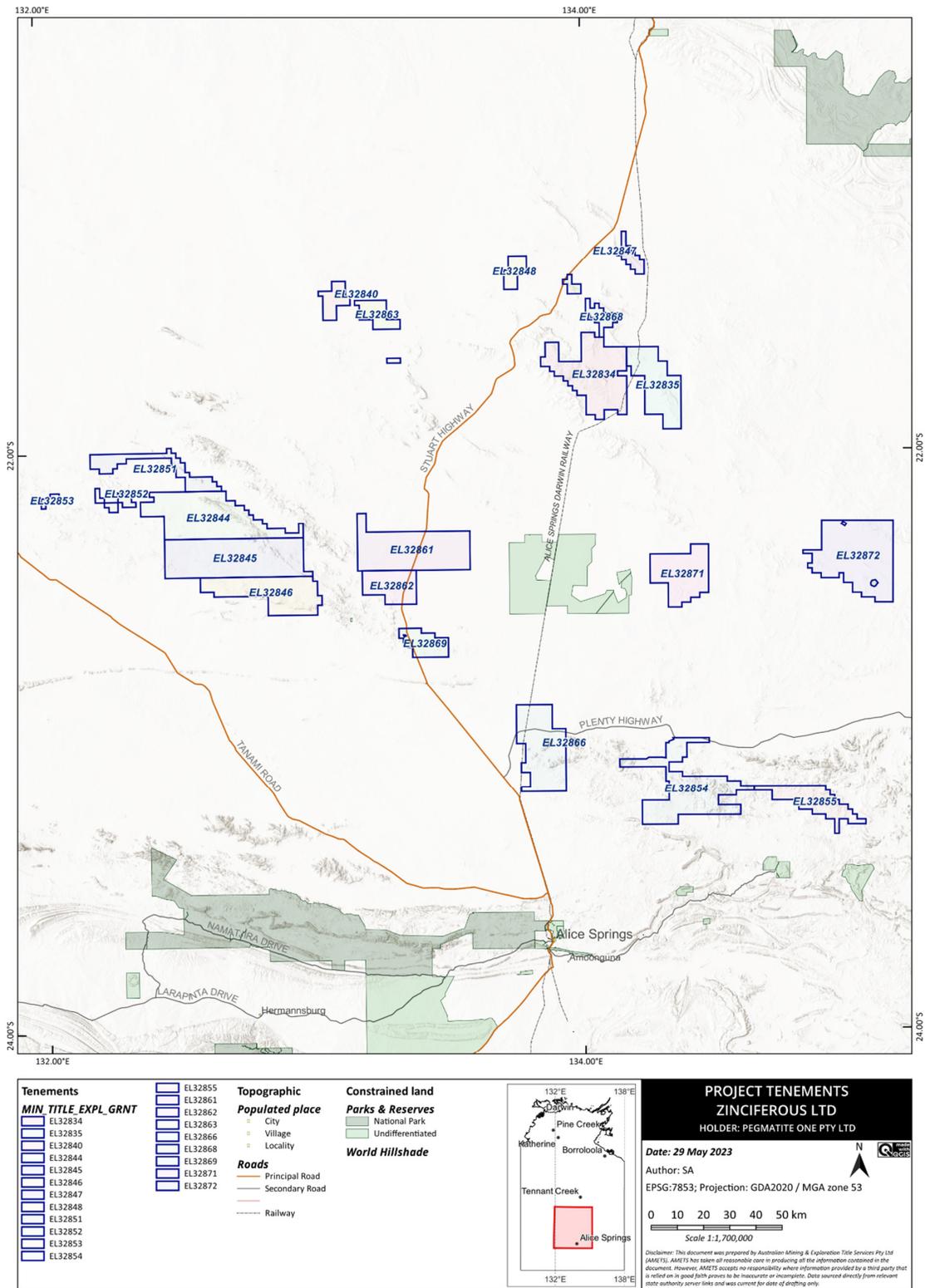


Figure 1: Zinciferous titles location plan

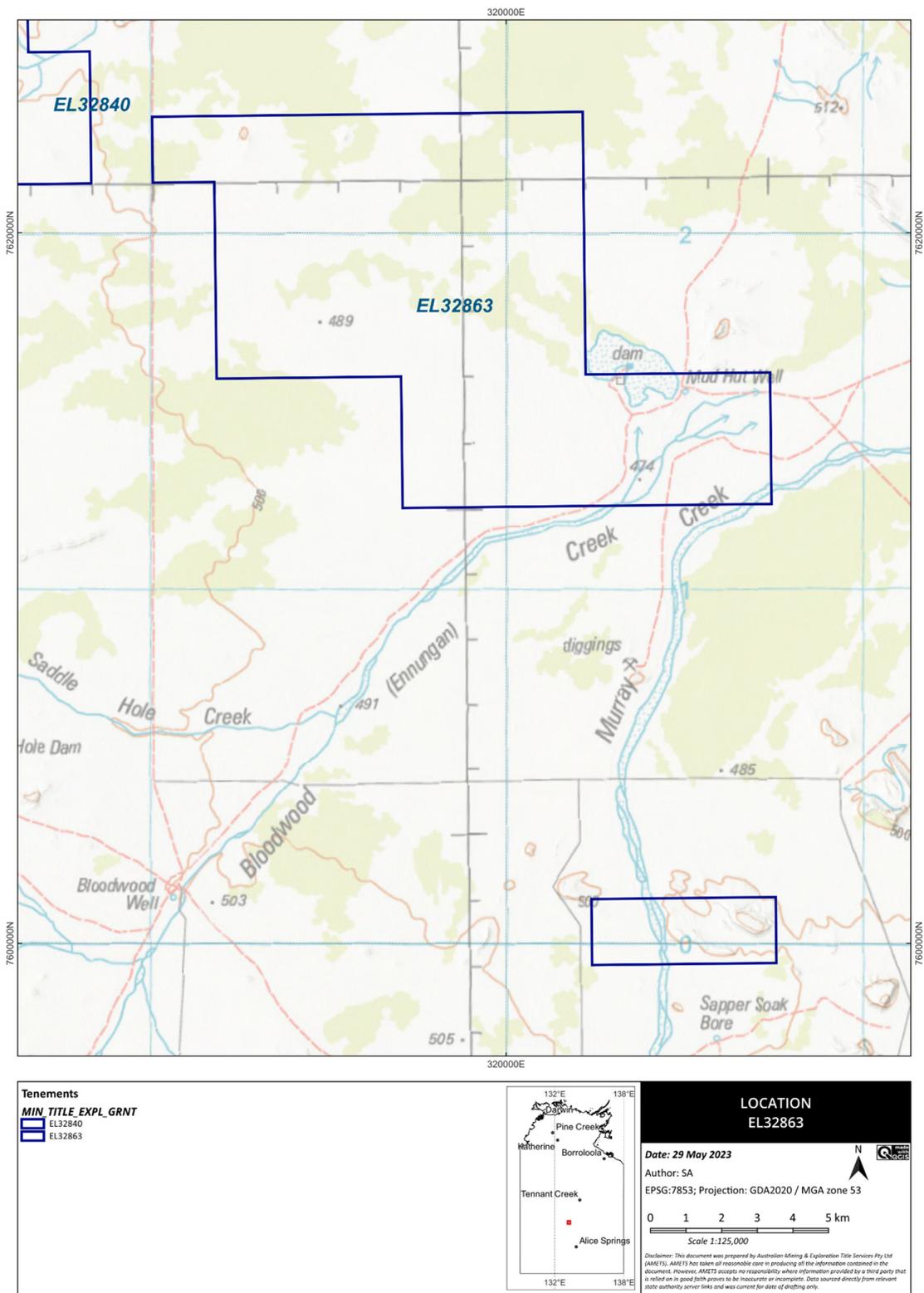


Figure 2: EL32863 location plan

2 Geological Setting

The dominant basement geology consists of meta-sedimentary Palaeoproterozoic units, primarily the Lander Rock Formation. The Lander Rock Formation comprises metapelitic and metapsammitic rocks, including hornfels, slate, phyllite and schist. Four constituent members have been mapped: Woodalla, Walabanba, Anningie and Mount Stafford; these are described below.

The Woodalla Member is interpreted to be a turbiditic succession and correlates with the Lander Rock Formation in the Mount Doreen 1:250,000 map. The Mount Stafford Member is a localised, high-metamorphic grade equivalent of the Woodalla Member. The Walabanba and Anningie members consist of interbedded slate and sandstone, and schist, respectively, and are interpreted to be more or less proximal shallow-water deposits.

Outcrop of the Lander Rock Formation is generally sparse. However, there are good exposures of the formation, both in the Walabanba Hills and in the vicinity of Central Mount in Anningie. In addition, there is outcrop around Conical Hill (in Conical Hill and northwestern Anningie) within EL32840, to the west of the title.

These units are intruded by felsic intrusions including the Redhackle Granite. The Redhackle Granite is a grey, K-feldspar megacrystic biotite granite. It is generally gneissic, often with 'augen' of feldspar or quartz, with K-feldspar eyes up to 5 cm. The Redhackle Granite has an igneous crystallisation age of $1,772 \pm 3$ Ma (Worden et al 2004). Relict cores of only two zircon grains were also analysed. They have a mean age of ca 1,840 Ma, and record inheritance. The Redhackle Granite is interpreted to intrude the Lander Rock Formation. The contact is apparently not exposed, although spotted hornfels is locally preserved in the Lander Rock Formation.

The Cenozoic cover consists of surficial deposits, duricrusts including ferricrete and calcrete, and intensely weathered rock.

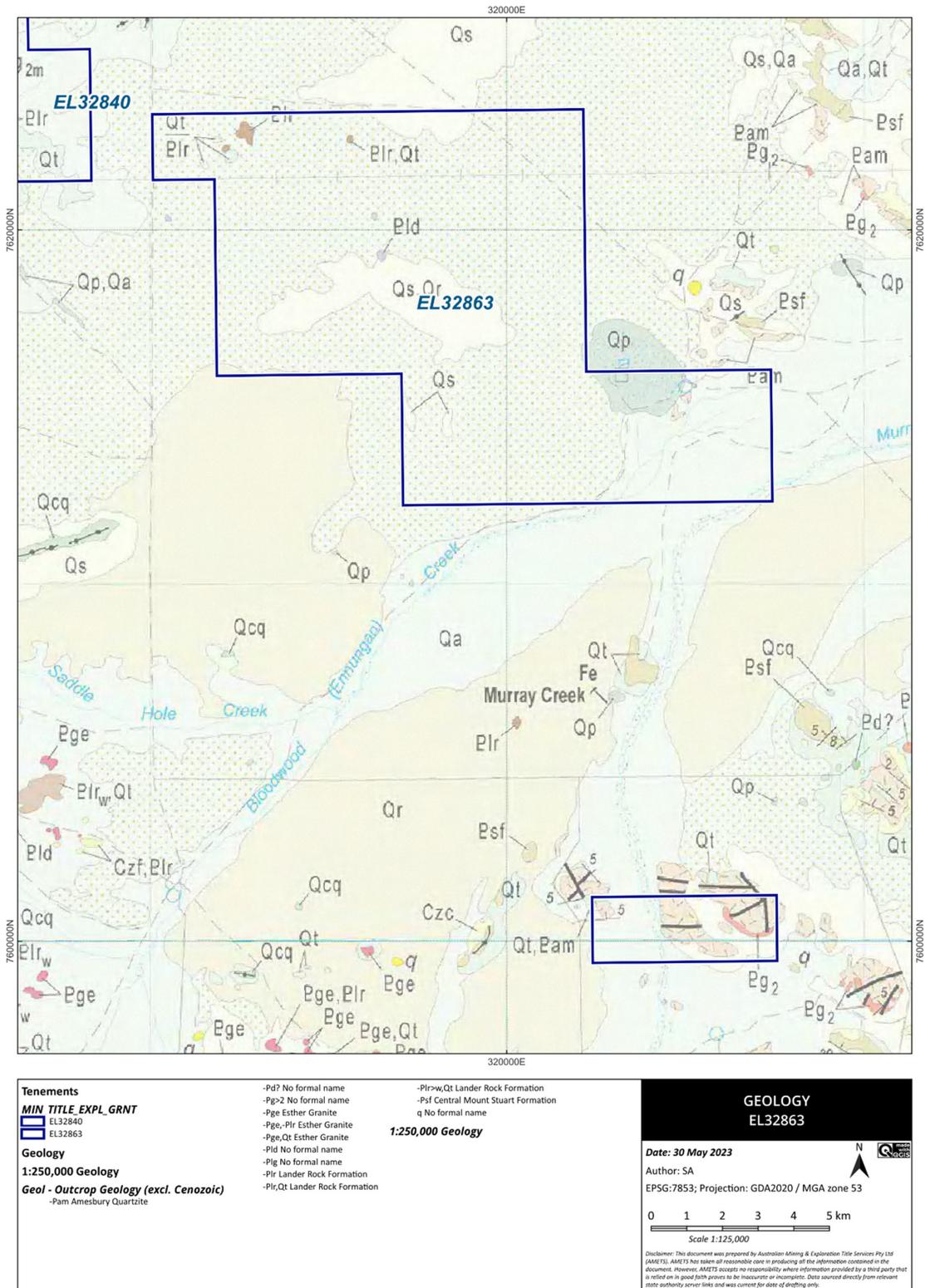


Figure 3: EL32863 geology

3 Exploration History

Available accounts of previous exploration over the area now covered by EL32863 are summarised in Table 2.

Table 2: Previous Exploration

Title	Owner	Period	Overlap	Notes
EL7557	BHPB Nickel West	1991-1998	Southern portion of EL32863	(Across this and 4 other titles.) Airborne magnetics. 28 RC holes for 1,011 m. 825 lag samples.
EL8718	Western Metals Copper	1994-1998	Northern portion of EL32863	76 RAB holes for 2,185 m. Aeromagnetic/radiometric survey. Ground magnetic traverses.
EL23271	Enigma Mining	2002-2012	Northern portion of EL32863	AEM survey. Ground EM. Gravity survey. 5 RC holes for 426 m.
EL23074	Enigma Mining	2002-2012	Northern portion of EL32863	AEM survey. Ground EM. Gravity survey. 13 diamond holes for 2,148.7 m. 20 RC holes for 3,076 m. Discovery of the world-class Mount Peake Fe-V-Ti deposit.

4 Exploration Rationale

The area has a history of tin prospectivity. Target minerals are lithium, tin and tantalum.

5 Exploration during the Reporting Period

During the first year of tenure Zinciferous focused exploration activities elsewhere within its tenure package, specifically a soil sampling program on EL32848.

During the reporting period Zinciferous conducted field reconnaissance across its tenure package.

Hyperspectral survey was conducted across the Zinciferous tenure, and high-quality data was acquired and processed. Zinciferous has engaged a consultant to interpret the data. At the time of writing this interpretation is ongoing; it is anticipated to be reported in the 2024 Annual Report.

6 Conclusion and Recommendations

During the upcoming reporting period Zinciferous intends to investigate and review the results of the hyperspectral survey to determine prospective areas for exploration.

References

Donnellan N, 2008. Mount Peake and Lander River, Northern Territory. 1:250 000 geological map series explanatory notes, SF 53-05, SF 53-01. Northern Territory Geological Survey, Darwin.

Worden KE, Cloué-Long JC, Scrimgeour IR and Lally JH, 2004. Summary of results. Joint NTGS-GA geochronology project: August 2003–December 2003. Northern Territory Geological Survey, Record 2004-004.