



# EL49/2006 “West Montagu” Partial Relinquishment Report

Volume 1 of 1

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## **SUMMARY**

Exploration Licence 49/2006 was granted to IMX Resources Ltd on 10<sup>th</sup> July 2007. The licence is located in the land district of Wellington vicinity of West Montagu as part of a Ni-Cu sulfide exploration project.

EL49/2006 is considered to have potential to host Ni-Cu sulfide mineralisation in subvolcanic basic-ultrabasic intrusions. Assessment of targets over the past two years has resulted in a decreased prospectivity for parts of the original licence area. A partial relinquishment of 29.95 km<sup>2</sup> is made for the licence area.

The area surrendered is located inside the existing EL49/2006 licence and is not considered prospective for Ni-Cu sulfide mineralisation. This report covers activities conducted solely on the partially relinquished portion of the licence.

## **KEY WORDS**

Tasmania North West, Smithton, EM (VTEM) Survey, magnetics, geochemistry, Ni-Cu sulfide mineralisation

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EL49\_2006\_2009\_Partial Relinquishment Report.pdf

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## **1.0 INTRODUCTION**

This report details all exploration work undertaken on the surrendered portion of Exploration Licence 49/2006, 'West Montagu' during the reporting period 10<sup>th</sup> July 2007 to 9<sup>th</sup> July 2009.

West Montagu is located in the district of Wellington vicinity of West Montagu. Access is via the Woolnorth Road and Marcus River Road. EL49/2006 is situated on the Montagu 1:25,000 map sheet.

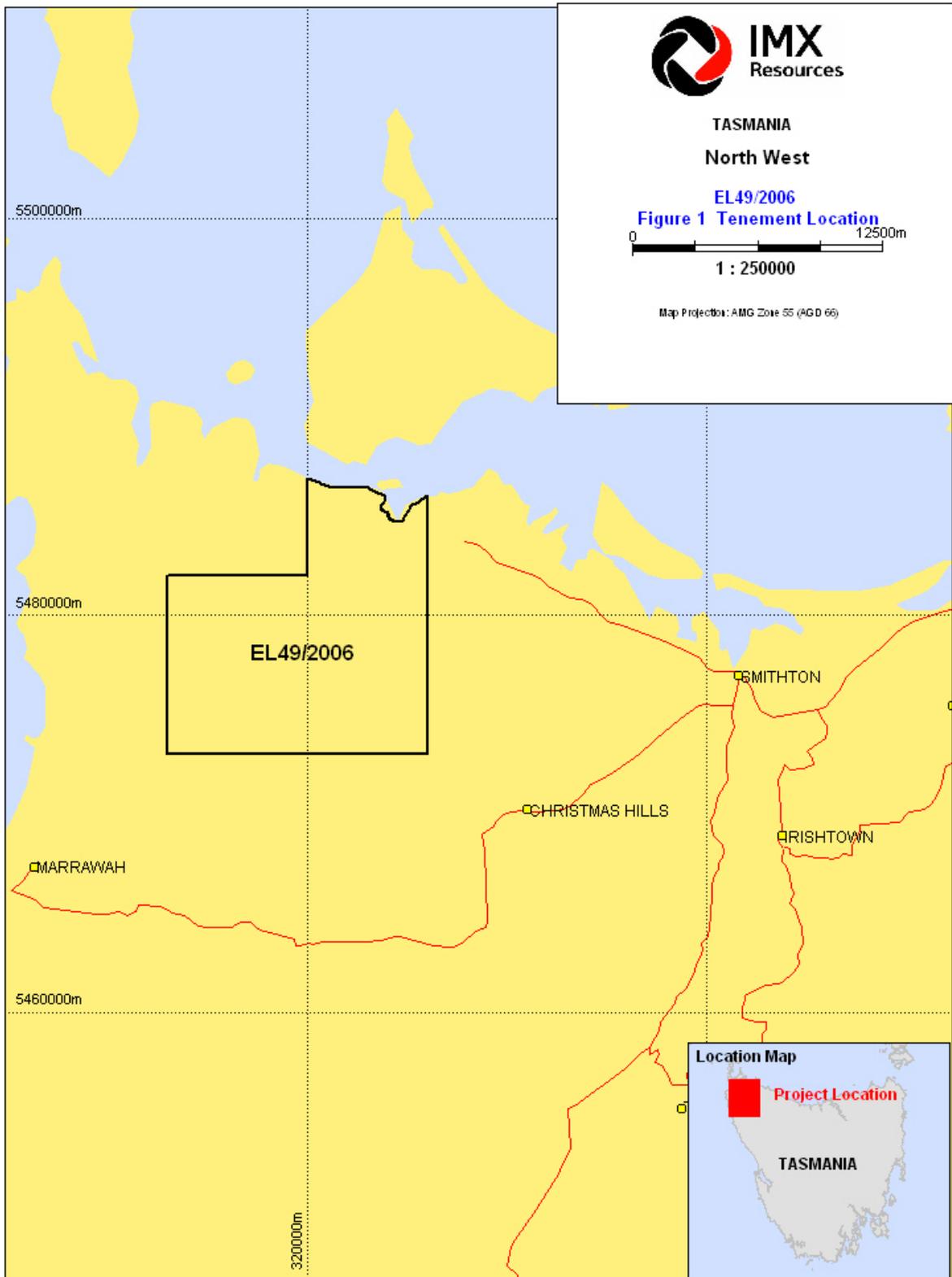
## **2.0 TENURE**

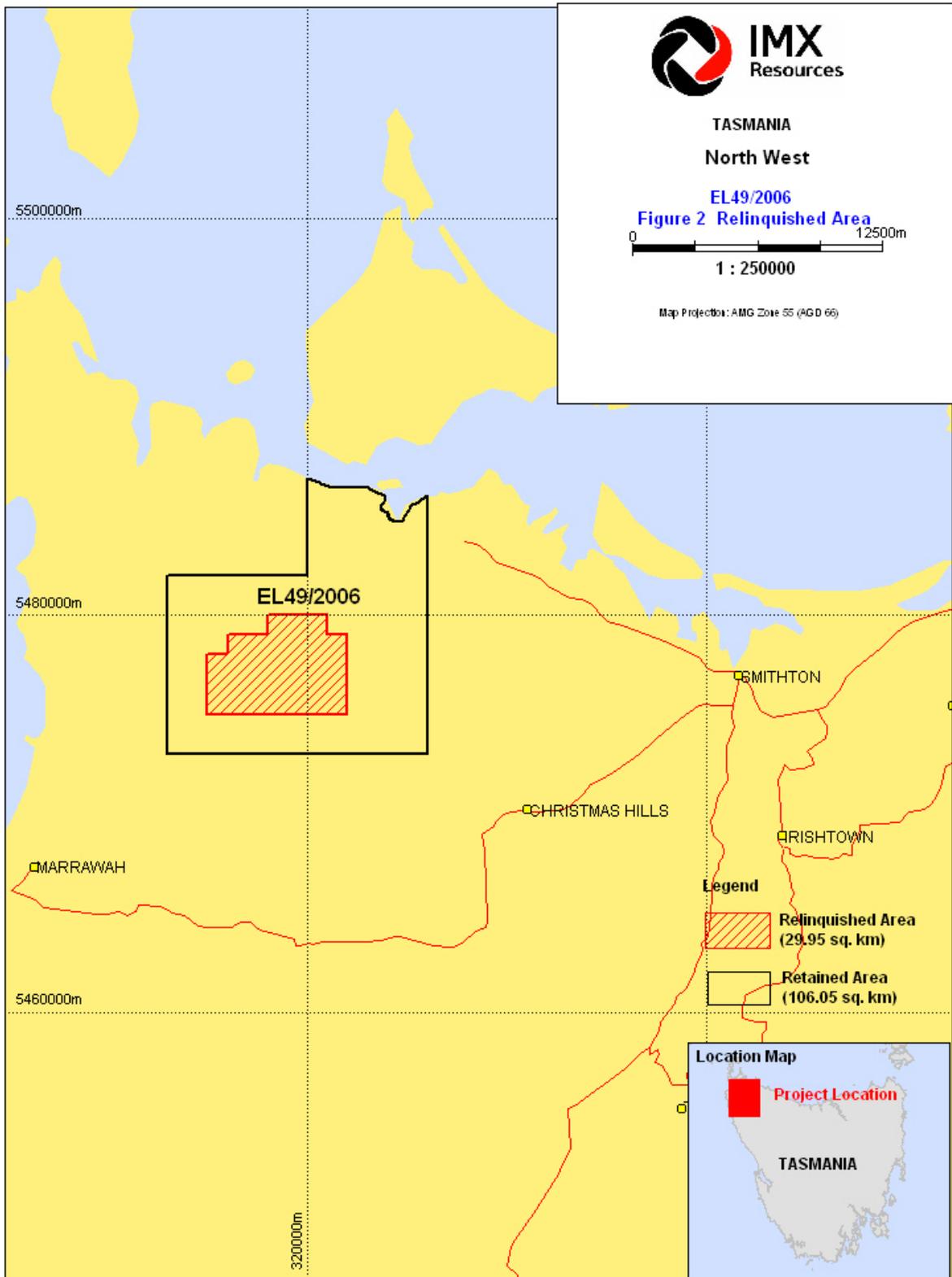
Exploration Licence 49/2006 was initially granted to Goldstream Mining NL (now IMX Resources Ltd) and covers an area of approximately 136 km<sup>2</sup> in the Land District of Wellington vicinity of West Montagu for a term of 5 years from the 10<sup>th</sup> July 2007.

The licence initially covered an area of 136 km<sup>2</sup> and has been reduced in the current period by 29.95 km<sup>2</sup> to 106.05 km<sup>2</sup>.

Table 1 Licence Details

<b>Licence</b>	<b>Granted</b>	<b>Expiry</b>	<b>Year</b>	<b>Area</b>
EL49/2006	10 <sup>th</sup> July 2007	9 <sup>th</sup> July 2012	5	136 km <sup>2</sup>
EL49/2006	TBA	Partial Surrender		29.95 km <sup>2</sup>





### **3.0 REGIONAL GEOLOGY**

The Rocky Cape region of northwest Tasmania consists of thick, essentially unmetamorphosed deformed Neoproterozoic sedimentary and volcanic successions (Calver 1998). The oldest exposed succession consists of orthoquartzites, siltstone and minor carbonate (the Rocky Cape Group) that underlies the Togari Group. The Rocky Cape Group is younger than 1200Ma. An angular unconformity separates the Rocky Cape Group from the Togari Group which occupies the Smithton Synclinorium in far northwest Tasmania... The Togari Group (Everard et al. 1996) consists of siliciclastics (Forest Conglomerate), a carbonate -chert-shale unit (Black River Dolomite) dated at 750-650 Ma, rift tholeiites and associated volcanoclastics (Kanunnah Subgroup) and dolostone (Smithton Dolomite) dated at 580-545 Ma. The Smithton Dolomite is overlain by Middle to Late Cambrian sandstone and shale, the Scopus Formation. On older maps e.g. the 1: 50 000 SMITHTON sheet all carbonates and dolostones are shown as Smithton Dolomite.

Dolerite dykes dated at 600-588 Ma and differentiated basic- ultrabasic intrusions related to the tholeiitic sequence were emplaced into the sequence below the Kununnah Group. The Proterozoic- Palaeozoic sequence is locally overlain by Tertiary basalts occurring mainly as hill cappings. Basalt compositions range from basanite through alkali olivine basalts to tholeiites. For a recent account of the Smithton Basin geology see Everard et al. (2007)

Mafic-ultramafic intrusions- shown on published maps as dolerite- in the South Forest area have been interpreted as feeders to the overlying basaltic volcanic and as possible host rocks for Ni-Cu sulfide mineralisation. Possible sulfur sources for Ni sulfide deposits are present in the Cowrie Siltstone (Rocky Cape Group) and in shales of the Duck River Dolomite.

### **4.0 PREVIOUS EXPLORATION**

Relatively little exploration has been carried out in EL 49/2006. The earliest work involved heavy mineral exploration but no significant concentrations were located. However small amounts of Sn in samples from Ann Bay along the northwest coast and a perceived similarity to the geology of King Island led Geopeko to explore a large area of NW Tasmania including the Montague Area for dolomite hosted Sn- W mineralisation during 1981-84. The work involved an airborne magnetic survey, auger drilling and geochemical sampling. A magnetic low surrounded by magnetic highs over basalts was interpreted as a concealed granite. It is now considered more likely that the magnetic low is due to nonmagnetic Rocky Cape rocks.

No significant Sn-W anomalies were located, but the program identified elevated levels of Ni and Cr both in metasediments and in basic volcanics. The Ni and Cu levels are similar

to those in subvolcanic picritic intrusions on King Island. The program was stopped due to the closure of Geopeko's Tasmania Office.

During 1998 Pacific Nevada explored most of the Smithton Synclinorium for Au or Cu/ Au in Proterozoic Iron formations or for Proterozoic sediment hosted Cu. They collected stream sediment samples, pan concentrates, BLEG samples and rock chip samples but did not locate any significant anomaly.

A detailed aeromagnetic survey with 200 m line spacing was flown over the tenement by AGSO/ MRT in 1996.

## **5.0 EXPLORATION ACTIVITIES**

No field activities were undertaken in the surrendered portion of EL49/2006 during the report period.

Exploration activities conducted included an open file data review public datasets including EM, magnetics and geochemistry. Topographic and geological maps were purchased and landholder information sourced to enable field activities.

## **6.0 CONCLUSIONS AND RECOMMENDATIONS**

An assessment of the prospectivity of the EL49/2006 licence resulted for an area of 29.95 km<sup>2</sup> to be relinquished. The area surrendered is located inside the existing EL49/2006 licence and is not considered prospective for Ni-Cu sulphide mineralisation exploration.

## **7.0 REFERENCES**

Barrett, F., Manzi, M., Chai, A. 2008. EL49/2006 "West Montagu" Annual Report for Period 9th July 2007 to 9th July 2008. IMX Resources Ltd.