



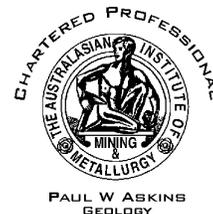
Geotech International Pty Ltd

## Mt Paris

**Third and Final Annual Report for EL19/2014  
for the Period 29 January 2017 to 28 January 2018**

Date: March 2018

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## **ABSTRACT**

This report describes the exploration activities completed within EL19/2014 during the period 29 January 2017 to 28 January 2018. This is the third and final annual report for the third year of grant of the Tenement.

The Tenement is located south of the town of Derby, and (directly) about 60km east of Launceston.

Tin and to a much lesser extent tungsten occur in quartz veins, in greisen and altered phases of the Devonian Mt Paris pluton in the roof zone near the contact with overlying Ordovician-Silurian Mathinna Beds. Lithium occurs as zinnwaldite in the granites and, to a not fully defined extent, in the greisens. Some of the clay altered granite may be lithium bearing.

The Tenement covers past producer alluvial tin mines and several small tin deposits in the basement. There has been only minor production of tin, mainly from secondary alluvial/eluvial deposits. The source of the major past production of alluvial cassiterite in the several Ringarooma valley leads was the Mt Paris pluton.

The company's main focus is exploration for tin, tungsten and lithium deposits.

Work completed during the period comprised a review of past exploration work, and a re-assessment of prospectivity. Field work was planned but not carried out, so work was desk-based with no field input.

The best targets for lithium have been evaluated with negative results so it is judged no further exploration work is justified for lithium.

The known primary tin deposits, mostly greisens in the northern sector of the Tenement, are judged based on past evaluations to be too small or of low tenor. The potential tin bearing area in the north sector of the Tenement is now judged to be non-prospective.

It was thus decided to surrender the licence.

**KEYWORDS**

NE Tasmania  
 Geology  
 Mineralisation  
 Alluvial  
 Primary Deposits  
 Granite  
 Greisen  
 Mathinna Group  
 Tin  
 Lithium  
 Exploration Targets

**SUMMARY OF ACTIVITIES for EL19/2014 Mt Paris  
 for the Period 29 January 2017 to 28 January 2018**

Work done by Geotech International Pty Ltd during the period consisted of

- Re-assess the prospectivity for untested or undiscovered tin deposits, especially in the northern sector of the licence,
- A review of Argosy’s prior work to decide if further lithium exploration was warranted,
- Decision to surrender the Tenement.

**CO-ORDINATES**

All lat/long co-ordinates in this report refer to the GDA94 Datum, unless stated otherwise.

All AMG co-ordinates in this report refer to the GDA94 - Zone55, unless stated otherwise.

**FILE SUMMARY LIST**

File name	Format	Contents
EL192014_2018_01_report.pdf	Pdf	Annual Report

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## 1.0 INTRODUCTION

This report describes the exploration activities completed within EL19/2014 during the period 29 January 2017 to 28 January 2018. This is the third and final annual report for the third year of grant of the Tenement.

The Tenement is located south of the town of Derby, and (directly) about 60km east of Launceston, Fig.1.

Table 1 – Tenement Details

Tenement	Holder	Date Applied	Date Granted	Size
EL19/2014 Mt Paris	Geotech International Pty Ltd 100%	29 July 2014	29 January 2015 (Categories 1 & 5)	115km <sup>2</sup>

Excluded from the grant of the tenement is one small 5ha mining lease for stone and gravel south of Bells Hill as illustrated on Fig 2.

Most of the land encompassing known mineralisation is logged state forest, timber plantation and timber reserves.

The project lies within the Tasmania NE (SK55-21) 1:250,000 map sheet, and the 1:25,000 map sheets of Ringarooma (5643), and Derby (5644).

Access is via the formed Branxholm-Weldborough Road, running through the centre of the Tenement, with logging tracks and other rough tracks providing further access.

The tenement covers past producer alluvial tin mines and several small tin deposits in the basement. There has been only minor production of tin, mainly from secondary alluvial/eluvial deposits.

The company's main focus is exploration for tin, tungsten and lithium deposits.

Work completed during the period comprised a review of past investigations and a final assessment of prospectivity. All work was desk-based with no field input.

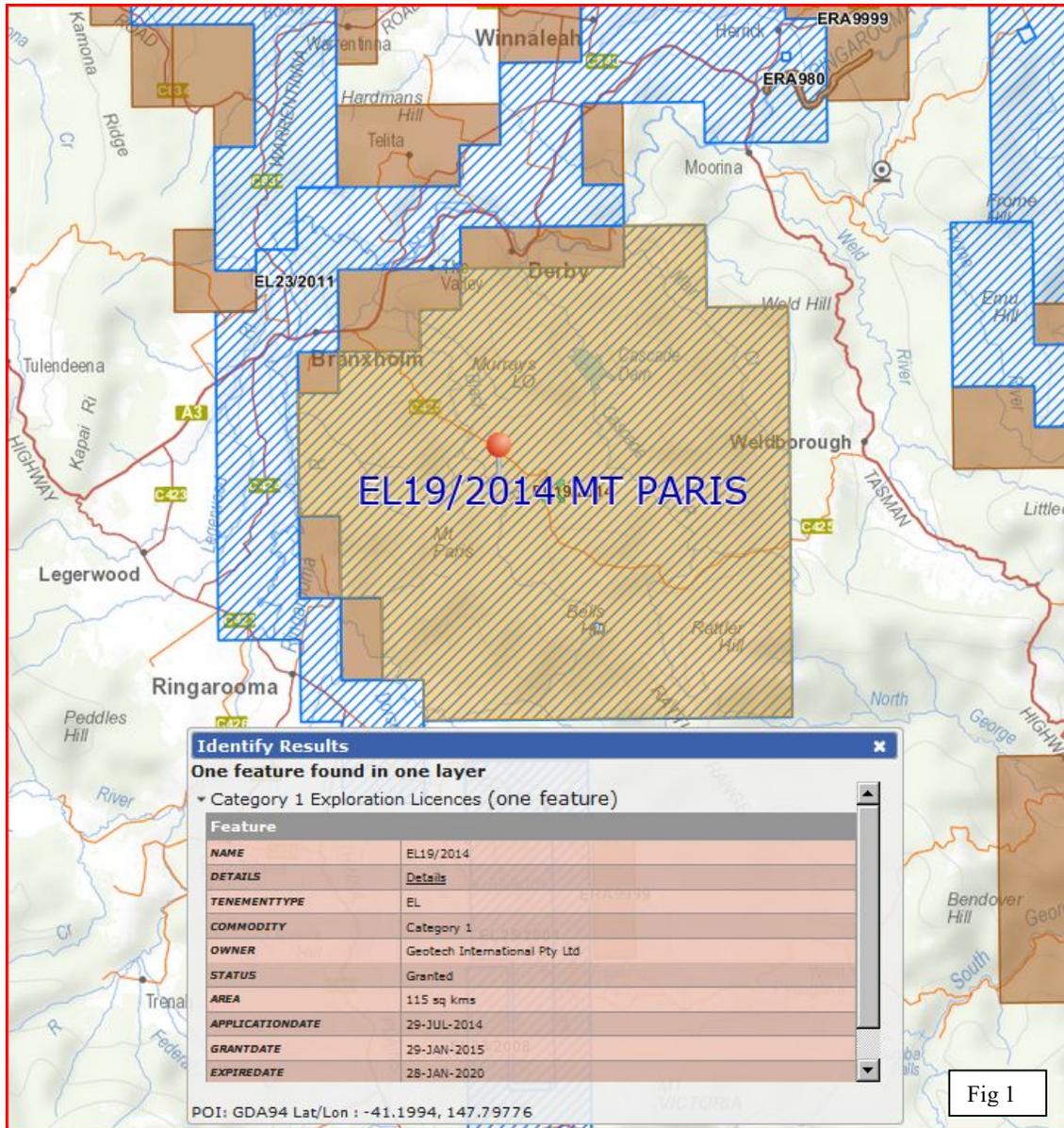
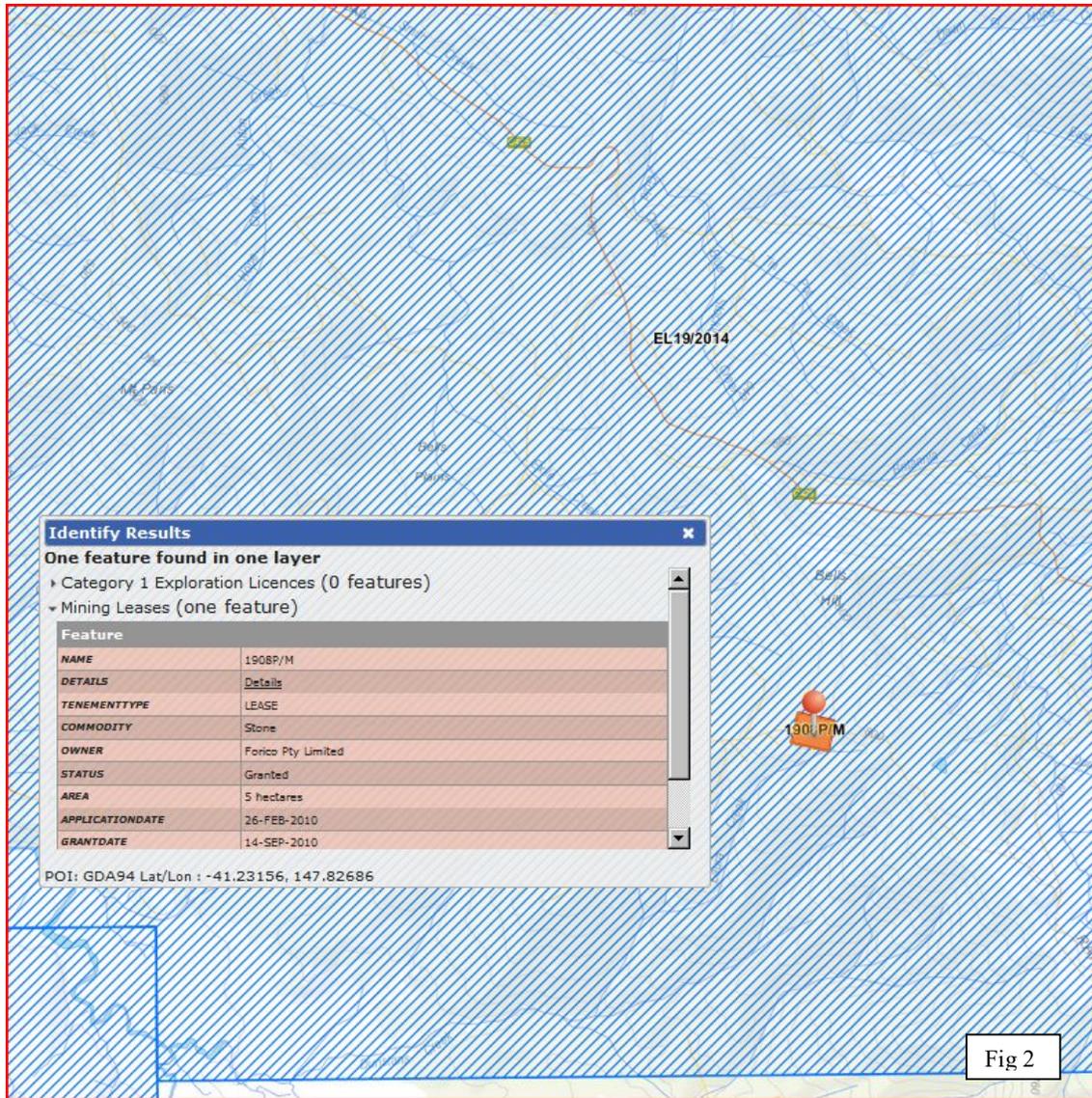


Fig 1



## **2.0 GEOLOGICAL SETTING and MINERALISATION**

The Mt Paris tenement area contains Siluro-Devonian Mathinna Bed meta-siltstones and quartzites, intruded by Devonian biotite muscovite alkali feldspar granite (the Mt Paris Granite, a phase of the Blue Tier Batholith) and minor Tertiary basalt flows and probable plugs. There is minor alluvial cover.

The 1:25 000 scale MRT geological maps for Ringarooma and Derby cover the area.

Particularly in the south of the area, an undulating granite roof zone is extensively exposed. In this zone there are known tin (tungsten, molybdenum) deposits concentrated in an ENE trending 12km by 2km corridor, Fig 3.

Known mineralisation in bedrock is confined to the granite, (and altered granite) with little mineralisation in the overlying slightly contact-metamorphosed Mathinna Beds. Bedrock mineralisation styles are (a) quartz-greisen veins containing coarse cassiterite with minor sulphides such as chalcopyrite, (b) micaceous greisen veins, usually steeply-dipping, also carrying cassiterite, (c) flat lying greisen sheets, and (d) clay (?kaolinite rich) altered granite.

Most historic cassiterite mining has been from sluicing of secondary eluvial and alluvial material and soft clay-altered granite. This has been poorly documented, and so production figures are not reliably known, but descriptions of the main deposits and workings are given by Solomon (1971), Nye (1924, 1933), McIntosh-Reid (1926), Keid (1944) and Jack (1962, 1966).

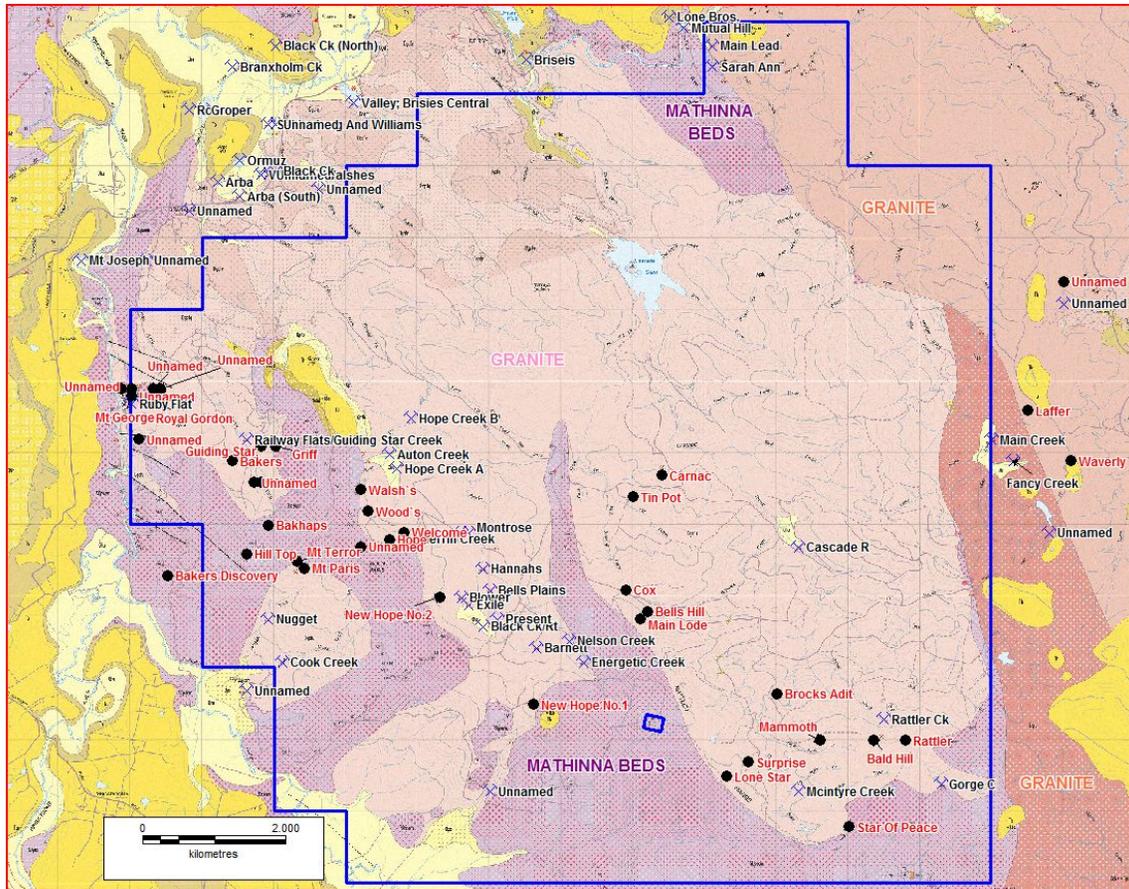


Fig 3. Known tin (& tungsten) deposits, on geology from 25 000 map sheets. Red are primary deposits in basement, and black are eluvial/alluvial deposits. Note absence of deposits in the northern sector.

### **3.0 REVIEW OF PREVIOUS MINING and EXPLORATION WORK**

The first documented discovery of tin in the area was in 1876 just outside the tenement at the Briseis alluvial deposit. Most production occurred before 1900 from alluvial deposits in several leads along the Ringarooma valley. The cassiterite in all those deposits, totalling over 23 000 tonnes of metallic tin, would have had its primary source in the Mt Paris area.

The mining and exploration history up to 2011 has been well and thoroughly documented by W Herrmann (2011) for Torque Mining, so I will not unnecessarily repeat its contents here.

After Herrmann's report was completed the results for exploration on a small surrendered exploration licence at Bell's Hill were released. The essential work is in de Vries (2008) and de Vries (2009). Work consisted of a review of mining history, very limited surface sampling and two diamond drill holes. The holes, to test the Bell's Hill lode, suffered from very poor recovery in the weathered granite, and so unfortunately the results are of little value.

Torque Mining reported on work done after the date of Herrmann's report, in Macdonald (2012). This work consisted of processing of MRT's airborne magnetic and radiometric and DEM datasets, and two traverses of soil sampling between Mullins and Mt Terror and south of Mt Paris with analyses done via a portable XRF device.

After Torque surrendered their tenement, Farrell (2013), Geotech conducted a comprehensive review of prospectivity for lithium and tin, Askins (2016).

The project was farmed out to Argosy Minerals Ltd, who in late 2016 and early 2017 used Ken Morrison to conduct lithium exploration of the greisens at Mt Paris Mine (Mt Terror) and Rattler Hill, including collecting, re-logging and analysing the historic samples of drill cores stored at the MRT core library in Hobart. The results of sampling downgraded the prospectivity for lithium, Zuvela (2017). As a consequence Argosy Minerals withdrew from the project and management reverted to Geotech.

#### **4.0 EXPLORATION COMPLETED DURING THE REPORT PERIOD**

Work done by Geotech International Pty Ltd during the period consisted of

- Re-assess the prospectivity for untested or undiscovered tin deposits, especially in the northern sector of the licence.
- A review of Argosy's prior work to decide if further lithium exploration was warranted.

## **5.0 PROSPECTIVITY FOR PRIMARY TIN DEPOSITS**

### (a) Apparently absent primary mineralisation in the northern sector of the Tenement.

This sector of the tenement was previously singled out as potentially highly prospective because it must have been the source of more than 20 000 tonnes of metallic tin extracted from alluvium at Briseis. It was speculated that ridges in the granite are mineralised and resistant to erosion perhaps because of silicification or albitisation. A field visit was planned to check this but unfortunately it did not eventuate.

I have concluded however that past prospectors in this area would surely have found any significant primary mineralisation, and that the likely original primary tin was in high ground close to a Mathinna bed carapace, which is now entirely eroded away. I have also checked again previous stream sediment sampling in the area. There was limited sampling in the Cascade catchment and the samples were not analysed for tin; the analysed copper lead and zinc are potentially pathfinders for tin deposits but none of those elements are anomalous.

### (b) Primary deposits in the southern sector of the Tenement, especially the known Ruby Flat-Mt Paris- Bell's Hill – Rattler trend

As noted previously mineralisation occurs in greisen systems, but past surface sampling and drilling has demonstrated that grades are erratic and unfortunately mostly low, averaging less than 0.1% Sn. There is still prospectivity, but it is ranked low.

## **6.0 PROSPECTIVITY FOR LITHIUM DEPOSITS**

The prior exploration tested the best greisen targets for lithium micas and the results were disappointing. Clearly there are still many unsampled greisens and so lithium rich areas may still exist in the area, but this is judged to be unlikely.

## **7.0 FUTURE WORK**

The tin and lithium prospectivity is now judged to be low and the Tenement will be surrendered.

## **8.0 EXPENDITURE**

Expenditures have been reported via MRT Quarterly Returns, until Sept 2017. Expenditure from Sept 2017 until end January 2018 was \$1650.00.

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