

RENISON LIMITED

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WILSON RIVER AREA

E.L. 17/77

ANNUAL REPORT 1978/79

MICROFILMED

Copies to:

Renison (2)

Tasmanian Mines Department (1)

BY: K. Wells

Senior Exploration Geologist

August, 1979

SUMMARY

Work during the year consisted essentially of two separate projects.

- (a) Nine kilometres of road were constructed along Serpentine Ridge from the H.E.C., Pieman Dam, access road into the upper reaches of the Harmon River. This was to allow later detailed investigations to be undertaken of an area of airborne E.M./Magnetic anomalies, which occur adjacent to the contact with the Meredith Granite.
- (b) Evaluation of the entire licence area was continued by means of a photogeological study.

Work to be undertaken in 1979-80 will involve a detailed evaluation of the zone of airborne E.M./Magnetic anomalies and reconnaissance exploration to evaluate other areas, outlined by the airborne survey and the photogeological study.

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1. INTRODUCTION

E.L. 17/77 was pegged in November 1977 and covers an area of 129 sq. kms, North of Renison Bell (Fig. 1) over the S.E. part of the Meredith Granite and adjacent Cambrian-Devonian sediments and ultra-basics of the Huskisson Syncline. A more detailed outline of the geology and previous work is given by Schellekens (1978) to which the reader is referred.

In 1977-78 a combined airborne E.M. (Input)/Magnetic survey was flown over the licence area (Butt 1978) and work undertaken during 1978-79 consisted essentially of

- a) Establishing ground access into the area to enable detailed examination of the airborne E.M./Magnetic anomalies to be undertaken.
- b) Undertaking a photogeological interpretation of the area utilising the colour aerial photographs obtained in 1978.

Work throughout the year has been undertaken by R.R. Schellekens, Senior Geologist and expenditure has amounted to \$57,109. Total expenditure to date is \$69,296 and proposed expenditure for 1979/80 is \$98,312

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2. WORK COMPLETED 1978/792.1 Access

The area, to date, has been extremely difficult to access, being remote from any pre-existing road or vehicular track. Previous experience has shown that dependable ground access is essential for the effective exploration of an area and in order to fully evaluate the significance of the airborne E.M./magnetic anomalies, detected in 1977/78, road construction was commenced, from the Mt. Lindsay area, E.L. 2/63, in early January 1979. This road was designed not only to provide ground access into the Wilson River area, but also to create some rock exposure, within the metamorphic aureole around the Meredith Granite (Fig. 2) However, soon after construction started, it became apparent that the steep rocky nature of the ground around the S.E. of Parson's Hood, precluded any successful road construction and this route was abandoned in favour of a new road, Northwards along Serpentine Ridge, from the newly established H.E.C., Pieman Dam, access road. The new road along Serpentine Ridge was commenced in the middle of February 1979 and by May 1979, at which time work was terminated due to the onset of winter, approximately 9 kms of access track, including a bridge across the Wilson River, had been established (Fig. 2).

A basic field camp has been located adjacent to the Harmon River and although some repair work and upgrading of the road will be required at the beginning of the next field season, the establishment of this camp should allow more definitive exploration to commence early in the year.

2.2 Photogeological Interpretation

The results of the photogeological interpretation, undertaken by Hunting, Geology and Geophysics, were received late in the year and have yet to be studied in detail. However, several major structures are apparent, cutting through both the granite and the surrounding sediments and the Report high-lights similarities between the Meredith, Heemskirk and Blue Tier Granites (also studied by Hunting.....) Several areas of extensive tourmalinisation /greisenisation have been identified, e.g. Tadpole Hill and the area between the Wilson and Little Wilson Rivers (Fig. 2), a grab sample from the latter area assayed 0.16% Sn.

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2.3 Other Work

The old Mt. Merton mine occurs in the S.W. part of the licence area (Fig. 2). This mine was described by Waterhouse (1914) who referred to a series of trenches and adits within a 30m (100') wide zone of weak pyritic mineralisation carrying low tin values; an altered quartz porphyry intrusive is also mentioned. Due to its remoteness little or no work appears to have been undertaken on the prospect since 1914; however, the presence of sulphides, tin and a quartz porphyry possibly close to a regional fracture (Sec. 2.2) is considered encouraging and the mine was located late in the year. Several trenches and two of the three adits have been located in thick bush, on the Eastern side of Serpentine Ridge, approximately 1 km from the H.E.C. road. Some surveying geological mapping and geochemical sampling is presently being undertaken.

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3. PROPOSED WORK PROGRAMME 1979-80

3.1 Introduction

The exploration programme proposed for 1979-80 consists of two phases: A detailed programme in the Upper Harmon River area and a reconnaissance programme elsewhere on the licence to try and designate other zones justifying more detailed exploration.

3.2 Detailed Exploration

The airborne E.M./magnetic survey in 1977-78 outlined a broadly anomalous zone, with several distinctive anomalies roughly coincident with the granite contact, in the vicinity of the Harmon and Wilson Rivers (Butt 1978). The anomalies may simply be due to the Cambrian ultrabasics, but in this area the Meredith Granite is in direct contact with the ultrabasics and the Ordovician Gordon Limestone, both of which are thought to be conducive to metasomatic replacement and the anomalies may be related to the development of skarn type tin/tungsten mineralisation.

In order to evaluate this zone it is planned to cut a grid, using the access road as a baseline, with grid lines 400m apart and pegged at 25m intervals (Fig 2). This grid is designed to cover the granite contact zone from the North side of Parson's Hood around to the Wilson River; The two Northern lines will be extended Westwards in order to cover the Tadpole Hill greisen zone in the Meredith Granite. The grid will be established, on a bearing of 065° magnetic and consist of five lines:

1000N	3600m in length	840N	3700m in length
960N	3600m in length		
920N	3900m in length		
880N	4100m in length	B.L.	400m in length

Total Length 19300m

In addition it is recommended that the Southern part of Betts track, which appears to cross this area, be cleared to provide easier access to the North.

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The grid will be geologically mapped, geochemically sampled and surveyed with magnetics and I.P. Any anomalous zones detected will require intermediate lines establishing over them and more closely spaced soil sampling and geophysical readings undertaken; in order to accurately delineate targets for diamond drilling, which could possibly be undertaken in the 1980-81 field season.

3.3 Reconnaissance Exploration

Many of the airborne E.M./magnetic anomalies detected in 1977-78 appear to simply be due to rock types e.g. deep alluvium/clay, ultrabasics etc; but others appear to be in geologically interesting positions, e.g. coincident to the ultrabasics, Gordon Limestone and Crimson Creek Sediments on the East side of the Huskisson Syncline, close to the Meredith Granite. These will need to be investigated further. In addition, the Photogeological Study appears to have revealed some interesting zones particularly within the Meredith Granite which will also require further work.

The Mt. Merton mine is now accessible and will be examined over the Winter months and Tadpole Hill will be investigated by means of the Harmon River grid. (Data from this area should be analysed separately from that collected elsewhere on the grid).

Any areas of potential interest that are confirmed by means of geological mapping and sampling will require gridding and more detailed work undertaken over them probably in 1980-81.

REFERENCES

- 008
- BOSHIER P. 1979 A Photogeological Study of the Meredith Granite and Surrounding area, Western Tasmania. Hunting Geology and Geophysics (Australia) Pty. Ltd Rep. No GA 93/78
- BUTT G. 1978 Interpretation Report Airborne Electromagnetic (Input) Survey of the Wilson River Area, Tasmania. Geotorex Pty. Ltd., Report 83-283
- SCHELLEKENS R. 1978 Progress Report - E.L. 17/77 Wilson River Area, Western Tasmania Unpublished Renison Limited Report.
- WATERHOUSE L.L. 1914 The Stanley River Tinfield. Tasmanian Department of Mines Bulletin No. 15.

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APPENDIX: 1

EXPENDITURE BREAKDOWNS AND DETAILS OF
PROPOSED BUDGET 1980-81

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PROPOSED BUDGET 79-80

<u>ITEM</u>	<u>EXPENDITURE \$</u>	<u>% OF TOTAL EXPENDITURE</u>
Salaries (including loading)	13,993	14
Consumables	12,571	13
Renison Services (Surveying, Assaying etc)	14,222	15
Outside Services (line pegging, bulldozing, helicopter etc.)	57,526	58
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TOTAL	98,312	100
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TOTAL EXPENDITURE 1978/79

<u>ITEM</u>	<u>EXPENDITURE \$</u>	<u>% OF TOTAL EXPENDITURE</u>
Salaries (including loading)	8,745	15
Consumables	10,414	18
Renison Services (surveying, assaying etc.)	Nil	
Outside Services (Bulldozing, Helicopter etc)	37,950	67
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TOTAL	57,109	100
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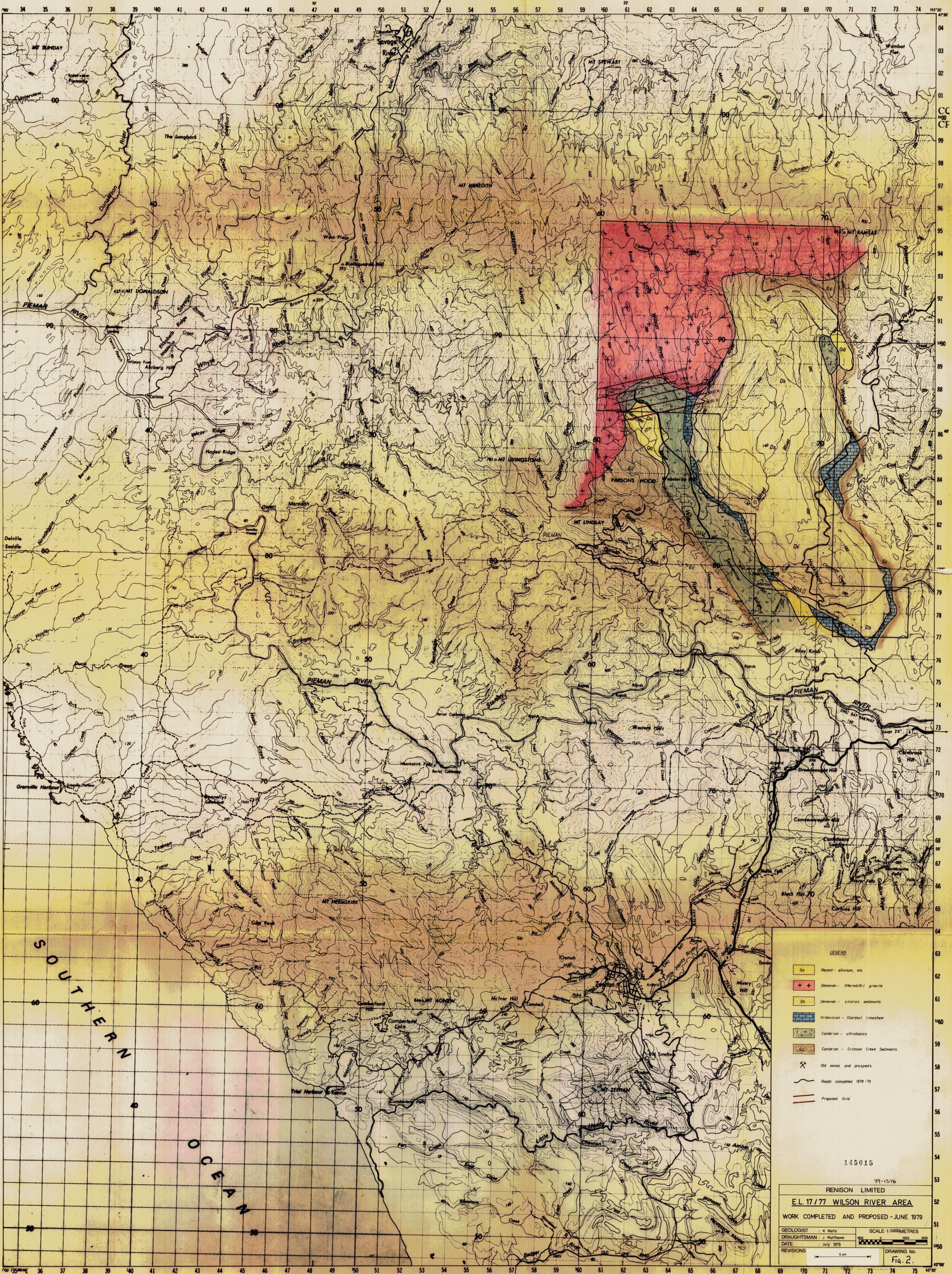
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TOTAL EXPENDITURE TO DATE (NOV. 77 - JUNE 79)

<u>ITEM</u>	<u>EXPENDITURE \$</u>	<u>% OF TOTAL EXPENDITURE</u>
Salaries (including loading)	9,015	13
Consumables	10,424	15
Renison Services (surveying, assaying etc)	Nil	Nil
Outside Services (Geophysics, bulldozing, helicopter etc)	49,856	72
Rounding	<u>1</u>	<u> </u>
	<u>TOTAL</u>	<u>100</u>

WARATAH 20 ML



LEGEND

- Recent - alluvium, etc.
- Devonian - (Meredith) granite
- Devonian - silurian sediments.
- Ordovician - (Gordon) limestone
- Cambrian - ultrabasics
- Cambrian - Crinson Creek Sediments
- Old mines and prospects
- Roads completed 1978-79
- Proposed Grid

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E.L. 17/77 WILSON RIVER AREA

WORK COMPLETED AND PROPOSED - JUNE 1979

GEOLOGIST : K. Wells SCALE 1:50,000 METRES

DRAUGHTSMAN : J. Matthews 0 100 200

DATE : July 1979

REVISIONS

DRAWING No. **Fig. 2.**

5 cm