

Quarter ending 30 September 2016

# Quarterly Report



## Highlights

- **Bygoo metallurgical work commenced**
- **New ELA submitted with tin prospects south of Ardlethan**

### BYGOO METALLURGY

Record rain in central NSW during September has delayed plans to progress drilling at Bygoo and other tin prospects. Drilling is now expected to commence in November.

Several samples of the Bygoo North tin greisen are undergoing metallurgical analysis to estimate recovery and treatment options. Results are awaited.

### ARDLETHAN SOUTH

During the quarter Thomson Resources applied for a new Exploration Licence (ELA 5350) over an area south of Ardlethan, contiguous with Thomson's granted EL 8260 (Figure 1). The new area is host to a number of old tin workings in the Frews area, as well as several old gold shows further south.

Between 1978 and 1983 the Shell Company of Australia (Billiton division) drilled 1,302 holes in the 45 square kilometre area marked green on Figure 1. The holes were shallow with an average depth of 20m and comprised 1,231 rotary air blast (RAB) holes testing unconsolidated soil and overburden to the top of hard rock, as well as 71 percussion holes and 3 diamond holes testing hard rock targets. Just 24 holes were deeper than 70m and all are shown on Figure 1.

The program outlined several bedrock tin anomalies, marked pink on Figure 1. There are three clusters, and all are close to the eastern outcrop edge of the Ardlethan Granite (like Bygoo to the north, Figure 2). Two of the clustered bedrock anomalies are east of old workings at Bald Hill and Frews. The third is 3km south of the Ardlethan Mine leases and doesn't appear to have been followed up.

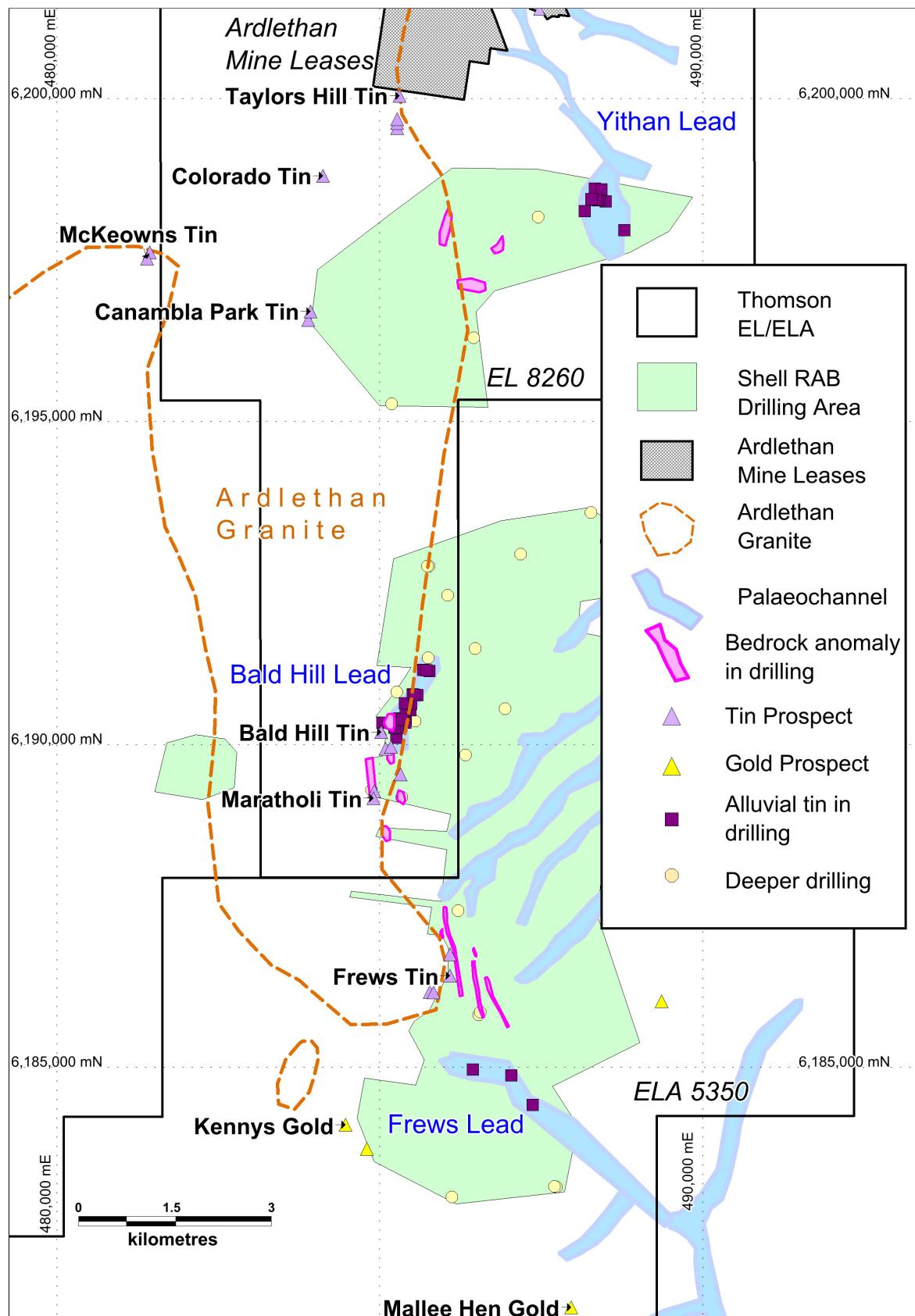


Figure 1: Ardlethan South area, showing historic drilling.

Shell targeted an Ardlethan deposit model of breccia pipes developed 500m to 1km east of the edge of the Ardlethan Granite. Hence there was very little drilling at and around any of the old (pre-war) tin workings. The only one tested appears to have been the Bald Hill/Maratholi group of tin mines (Figure 1) where just two holes were directed under old workings. 28 percussion holes were drilled in the area and again were shallow, with an average depth of 34m (Table 1). Several holes hit tin mineralisation with the better hits in PBH8 at Bald Hill (2m at 1.3% Sn from 12m), and the two holes under the Maratholi workings – PBH 15 (12m at 0.23% Sn from 14m) and PBH 16 (18m at 0.26% Sn from 36m). These intersections were not followed up. No drilling occurred around the Frews tin workings further south, or any of the other nearby old tin mines on the Ardlethan Granite (Canambla Park, Colorado, McKeowns) or the gold shows (Kennys, Mallee Hen).

In addition, Shell also discovered three alluvial tin deposits in palaeochannels (Figure 1) – the southern extension of the Yithan Lead, a zone running north from Bald Hill and a smaller zone running southeast from Frews. Further work led Shell to declare a (pre-JORC) resource for the Bald Hill Lead.

### **Bald Hill Lead alluvial resource**

The historic Bald Hill Lead alluvial resource was estimated in 1984 in a report by DJ Borton for Billiton (the Metal Division of the Shell Company of Australia), available from the NSW Government's DIGS public open file report system.

The historic resource was **2,501,875 tonnes at 524 ppm Sn (0.05%)** with an average thickness of 9.5m over a strike length of 1100m, **containing 1,300 tonnes of tin metal**. The historic resource estimate is not reported in accordance with the JORC code and it is uncertain that following evaluation and/or further exploration the resource will be able to be reported in accordance with the JORC Code. A competent person has not done sufficient work to classify this historic estimate in accordance with the JORC code.

The historic resource was based on 51 RAB holes and 7 percussion holes drilled between 1982 and 1983. In general the sample interval was 2m and analysis was by laboratory XRF. Early samples were collected by grab handfuls, while later sampling was by splitting from a cyclone. The resource was calculated on eight individual sections with a 200ppm cut off. A specific gravity of 2 was assumed and the average depth to the top of the resource was estimated at 7m. The resource was not classified into JORC categories.

The relevance of this historic resource is that it is a significant deposit of tin thought to be sourced by weathering from an as yet undiscovered hard rock deposit in the Bald Hill area.

While the Company's focus is on hard rock tin discovery, it considers a modest program of re-drilling, density measurements and modelling would be required verify the resource and report to JORC 2012. The Company is not in possession of any new information or data relating to the historic estimate that materially impacts on the reliability of the

estimates or the Company's ability to verify the historic estimate as mineral resources in accordance with the JORC Code.

### **Co-operative Drilling Grants**

The NSW Government awarded two grants to Thomson from the New Frontiers Cooperative Drilling program Round 2. Thomson was awarded \$170,000 direct drilling support for two projects - Mt Jacob and Cuttaburra. Drill holes must be completed by the end of June 2017 and will be scheduled prior to that date.

### **Tenement Holdings and Joint Ventures**

Thomson is exploring 640 square kilometres over seven granted titles, with an interest in seven other tenements (472 square km) under joint-venture arrangements with companies including Kidman Resources (ASX:KDR), Silver City Minerals (ASX:SCI), Silver Mines Ltd (ASX:SVL) and Variscan Mines Ltd (ASX:VAR) as well as private investors.

The record rain in September also disrupted drilling plans at the Wilga Downs VMS copper-zinc project by our Joint Venture partners, Silver City Minerals (see SCI ASX report October 6, 2016).

### **Corporate**

Exploration expenditure incurred during the quarter totalled \$32,000. Cash at the end of the quarter was \$67,930. An \$81,615 grant for eligible Research and Development activities under the Commonwealth Governments R & D Tax Incentive scheme was received in October.

Thomson has no debt and had 99,005,156 shares on issue at quarter end.

### **Thomson Resources Ltd**



**Eoin Rothery**

Chief Executive Officer

*The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Eoin Rothery, (MSc), who is a member of the Australian Institute of Geoscientists. Mr Rothery is a full time employee of Thomson Resources Ltd. Mr Rothery has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Rothery consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

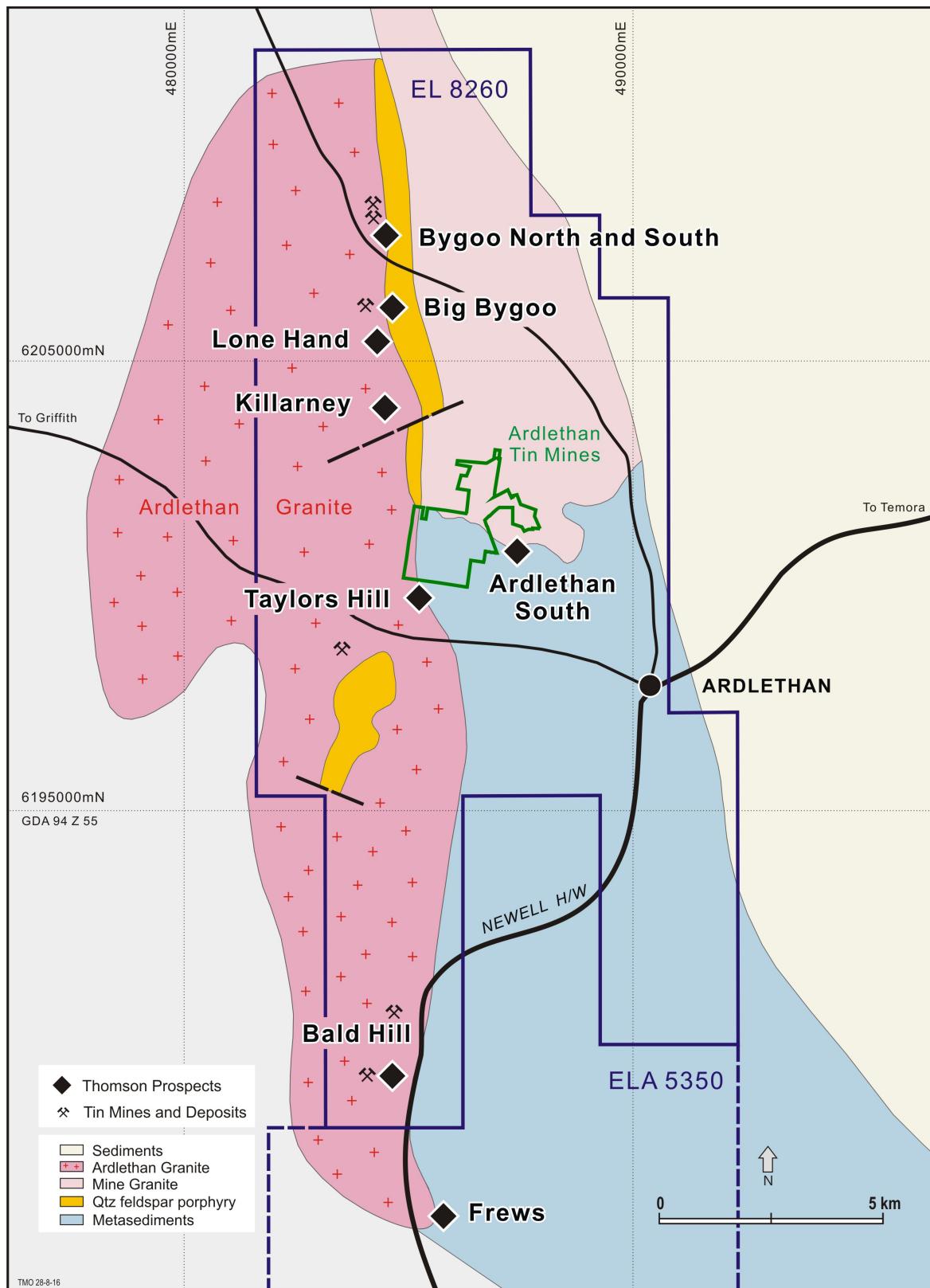


Figure 2: Ardlethan general area, showing tin prospects.

Shell Percussion Drilling at Bald Hill – Table 1

Hole ID	MGAE	MGAN	Depth	Dip	Az_MGA	Bedrock	Max Sn (ppm)	From m	Intersection
PBH01	485488	6189964	52	-90	0	hornfels	135	28	
PBH02	485389	6189979	20	-90	0	Granite	100	2	
PBH03	485290	6189995	8	-90	0	Granite	110	0	
PBH04	485229	6189599	16	-90	0	Quartz-Tourmaline	45	0	
PBH05	485131	6189614	4	-90	0	Quartz-Tourmaline	40	2	
PBH06	485161	6189812	6	-90	0	Greisen	730	0	
PBH07	485252	6190405	30	-90	0	clay	1300	28	
PBH08	485153	6190420	26	-90	0	Greisen	12800	12	2m at 1.3% from 12m
PBH09	485054	6190435	9	-90	0	Granite	180	0	
PBH10	485032	6189629	10	-90	0	Granite	70	6	
PBH11	484933	6189645	8	-90	0	Quartz-Tourmaline	55	4	
PBH12	484834	6189660	10	-90	0	Granite	405	6	
PBH13	485070	6189219	13	-90	0	Granite	80	4	
PBH14	484971	6189234	8	-90	0	Granite	25	6	
PBH15	484883	6189288	30	-61	98	Granite	6200	16	12m at 0.23% Sn from 14m
PBH16	484869	6189290	80	-61	98	Granite	5200	36	18m at 0.26% Sn from 36m.
PBH17	485548	6190360	78	-90	0	hornfels	50	0	hole abandoned - caving
PBH18	485449	6190375	30	-90	0	Siltstone	810	6	Tin at base of alluvium
PBH19	485350	6190390	36	-90	0	clay	370	10	
PBH20	485328	6189584	27	-90	0	Granite	85	26	12m of hornfels above
PBH21	485427	6189569	30	-90	0	hornfels	85	28	
PBH22	485337	6189178	54	-90	0	hornfels	465	20	elevated Sn 135-465 from 6m to EOH
PBH23	485187	6190314	50	-90	0	Granite	1500	44	4m at 0.2% Sn and 0.7% Zn from 44m
PBH24	485225	6190561	50	-90	0	hornfels	70	0	
PBH25	485286	6190299	50	-90	0	Granite	1300	16	
PBH26	485324	6190546	50	-90	0	Siltstone	225	6	
PBH27	485202	6190413	60	-90	0	Granite	435	22	
PBH28	485339	6189178	120	-90	0	Granite	2000	38	1100 ppm at granite contact

## JORC Code, 2012 Edition – Table 1 report

### Section 1 Sampling Techniques and Data

Criteria	Commentary
<i>Sampling techniques</i>	For Shell drilling –mostly 2m intervals, some grab samples, some split from cyclone.
<i>Drilling techniques</i>	Between 1978 and 1983 the Shell Company of Australia (Billiton division) drilled 1,302 holes in the 45 square kilometre area marked green on Figure 1. The holes were shallow with an average depth of 20m and comprised 1,231 Rotary Air Blast (RAB) holes testing unconsolidated soil and overburden to the top of hard rock as well as 71 Percussion holes and 3 diamond holes testing hard rock targets. Just 24 holes were deeper than 70m and all are shown on Figure 1.
<i>Drill sample recovery</i>	Shell did not routinely log recoveries.
<i>Logging</i>	All holes were logged for geology. Bedrock lithologies for PBH1 to 28 are given in Table 1.
<i>Sub-sampling techniques and sample preparation</i>	No sub-sampling was carried out.
<i>Quality of assay data and laboratory tests</i>	No details of assay duplicates and standards are given in the Shell reports.
<i>Verification of sampling and assaying</i>	No independent verification has been carried out.
<i>Location of data points</i>	All Shell drilling was carried out on a local grid. The grid conversion to MGA was estimated by a grid/bearing calculation using a Shell gravity base station co-ordinate and the grid north direction.
<i>Data spacing and distribution</i>	The data spacing is irregular.
<i>Orientation of data in relation to structure</i>	For hard rock there is almost no information available from the Shell drilling as most holes only sampled the weathered bedrock/fresh rock interface. For the alluvial resource all holes were vertical and the deposit was dipping a few degrees to the north.
<i>Sample security</i>	No particular security measures were taken.
<i>Audits or reviews</i>	No independent audit or review undertaken as this was not thought to be required at this stage.

### Section 2 Reporting of Exploration Results

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	All drill holes reported occur within NSW Exploration Licence EL 8260 and ELA 5350 owned by Thomson Resources Ltd.
<i>Exploration by other parties</i>	The historic drilling was detailed in various reports for Billiton (the Metal Division of the Shell Company of Australia), available from the NSW Government's DIGS public open file report system. The relevant reports are listed below. Information from a total of 1,302

Criteria	Commentary
	drill holes from the reports were data-entered by Thomson into various spreadsheets and plotted on maps (e.g. Figure 1).
<i>Geology</i>	Geology is described in the body of the release.
<i>Drill hole Information</i>	See the Shell reports listed below for EL 1050 and EL 1901.
<i>Data aggregation methods</i>	Not applicable.
<i>Relationship between mineralisation widths and intercept lengths</i>	All widths quoted are downhole widths. Assessment of true width is a modelling exercise.
<i>Diagrams</i>	Multiple diagrams are provided in the Shell reports listed below.
<i>Balanced reporting</i>	Only one sample was assayed in most holes drilled by Shell as they were exploration holes looking for tin indications. Accordingly only this single tin number or the maximum tin value from bedrock and cover material, if available, was input into Thomson's data spreadsheets.
<i>Other substantive exploration data</i>	No significant exploration data has been omitted.
<i>Further work</i>	A review is continuing and further drilling is planned.

### Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	Commentary
<i>Database integrity</i>	<ul style="list-style-type: none"> <li>Billiton (the Metal Division of the Shell Company of Australia) reported all drill results according to Government required standards in the reports listed below.</li> </ul>
<i>Site visits</i>	<ul style="list-style-type: none"> <li>No site visit has been undertaken; access agreements are required and are to be negotiated.</li> </ul>
<i>Geological interpretation</i>	<ul style="list-style-type: none"> <li>Bedrock lithologies and cover depths were input from the reports and used to modify the Ardlethan Granite outcrop boundary and the occurrence of palaeochannels (Figure 1).</li> </ul>
<i>Dimensions</i>	<ul style="list-style-type: none"> <li>The Bald Hill historic resource covers an area 1100m long and 200m wide.</li> </ul>
<i>Estimation and modelling techniques</i>	<ul style="list-style-type: none"> <li>The historic resource was estimated using a sectional technique on eight drill sections.</li> </ul>
<i>Moisture</i>	<ul style="list-style-type: none"> <li>Moisture was not considered in the historic resource estimation.</li> </ul>
<i>Cut-off parameters</i>	<ul style="list-style-type: none"> <li>A cut off of 200ppm Sn was used.</li> </ul>
<i>Mining factors or assumptions</i>	<ul style="list-style-type: none"> <li>No mining factors were employed.</li> </ul>
<i>Metallurgical factors or assumptions</i>	<ul style="list-style-type: none"> <li>No metallurgical factors were employed.</li> </ul>

Criteria	Commentary
<i>Environmental factors or assumptions</i>	<ul style="list-style-type: none"> <li>No environmental factors were employed.</li> </ul>
<i>Bulk density</i>	<ul style="list-style-type: none"> <li>A specific gravity of 2 was universally applied, in line with densities of gravel, clay and sand deposits elsewhere.</li> </ul>
<i>Classification</i>	<ul style="list-style-type: none"> <li>The historic resource was estimated pre-JORC and was not classified.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>No audit or review has been carried out.</li> </ul>
<i>Discussion of relative accuracy/ confidence</i>	<ul style="list-style-type: none"> <li>The historic resource is considered relatively robust given the large numbers of holes which all intersected significant tin.</li> </ul>

### List of Relevant Reports

Author	DIGS number	Period
Heydon, DJ	GS1978_120.R00016317	First six monthly report EL1050
Higgins, ML	GS1978_120.R00016318	Second six monthly report EL1050
Higgins, ML	GS1978_120.R00016319	Third six monthly report EL1050
Higgins, ML	GS1978_120.R00016320	Fourth six monthly report EL1050
Helsten, KJ, Higgins, ML, Heydon, DJ	GS1980_165.R00015811	Fifth six monthly report EL1050
Higgins, ML	GS1980_165.R00015812	Sixth six monthly report EL1050
Higgins, ML	GS1980_165.R00015813	Seventh six monthly report EL1050
Higgins, ML	GS1981_514.R00015203	Eighth and Final six monthly report EL1050
Borton, DJ	GS1982_383.R00010629	Ninth six monthly report EL1050 extended
Borton, DJ	GS1982_383.R00010630	Tenth six monthly report EL1050 extended
Borton, DJ	GS1983_265.R00014655	Second six monthly report EL1901
Borton, DJ	GS1983_265.R00014656	Third and Final six monthly report EL1901