



STELLAR RESOURCES LIMITED
Columbus Metals Ltd

RL 5/1997 ZEEHAN

**ANNUAL REPORT FOR THE PERIOD
20 MAY 2011 – 19 MAY 2012**

Compiled by: R.K. Hazeldene & A. M. Rigg

DATE: May 2012

DISTRIBUTION:

**Mineral Resources Tasmania, a Division of the
Department of Infrastructure, Energy and Resources - Hobart
Stellar Resources Ltd - Melbourne**

ACCEPTED BY:

**Stellar Resources Limited
(ACN 108 758 961)
Level 7, 530 Little Collins Street,
Melbourne,
Victoria, 3000.**

ABSTRACT

This Annual Report for RL 5/1997, Zeehan, covers the period from 20 May 2011 to 19 May 2012.

Retention Licence 5/1997 encompasses an area of 6 km² on the western outskirts of Zeehan Township, in NW Tasmania. It covers the historic Queen Hill, Severn and Montana deposits, which form the Heemskirk Tin Project. The deposits are located under or adjacent to Queen Hill immediately northwest of Zeehan.

Exploration from the 1960's through until the mid 1980's identified significant tin mineralisation associated with, and under, old lead/silver deposits mined in the late 1800's and early 1900's. In 1983 the resource estimate for the three deposits, based on 23,000 metres of drilling, was 3 million tonnes of ore (>0.1%Sn cut off) grading 0.7%Sn and 10.9 g/t Ag. Due to depressed tin prices and corporate matters no significant work was undertaken on the project between 1990 and 2009.

Stellar Resources Ltd, through its subsidiary Columbus Metals Ltd, purchased a 60% interest in the 'Gippsland Joint Venture' from Western Metals Ltd early in 2008, so forming a joint venture with the other party, Gippsland Limited. In Feb 2012 Stellar purchased Gippsland Ltd.'s 40% holding for cash and shares. Stellar now has 100% ownership of the licence, with Gippsland Ltd being entitled to a royalty on tin production when the LME tin price exceeds \$25,000/tonne.

During 2010 Stellar drilled 6 diamond drill holes, totalling 585m into the near surface portion of the Queen Hill Deposit. Core from this program provide material for on going metallurgical test work. The results from the drilling, together with historical drilling data, was used by consultants, Mining One, to calculate the first JORC compliant resources estimate for the Heemskirk Tin Project. The estimate is summarised below.

Deposit	Indicated			Inferred			Total		
	kt	% Sn	kt Sn	kt	% Sn	kt Sn	kt	% Sn	kt Sn
Queen Hill	1,600	1.2	19				1,600	1.2	19
Montana				360	1.6	6	360	1.6	6
Severn				2,400	1.0	24	2,400	1.0	24
Total	1,600		19	2,760		30	4,360	1.1	49

cut-off grade 0.6% tin

estimated on 3 March 2011 by Mining One Pty Ltd

Drilling in 2011 comprised three diamond drill holes into the edges of the Queen Hill Deposit, two holes into the Stormsdown Prospect, three holes into the Montana Deposit and one hole with a wedged hole under the Severn Deposit. Drilling was suspended during negotiation for the purchase of Gippsland's interest in the project but recommenced in March at the Severn Deposit. To date four more holes have been drilled at Severn. This work is on going.

Metallurgical studies have continued throughout the year to define the optimum procedure to treat the various ore types at the project. This has been augmented by a mineragraphy study of the Severn mineralization. These studies continue.

Consultants Mining One followed their ore resource estimation with a mine scoping study of the Heemskirk Project, which gave positive results.

In March 2012 Stellar commissioned a high-resolution aeromagnetic survey. The results of the survey have provided high quality data enabling detailed definition of numerous magnetic and structural features. At the time of writing, the survey is undergoing specialist geophysical processing.

Exploration expenditure on RL 5/1997 during 2011/12 by Stellar totalled \$1,553,324.

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1. INTRODUCTION

1.1. EXPLORATION RATIONALE

RL 5/1997 covers the Heemskirk Tin Project, which comprises the structurally controlled cassiterite-sulphide Queen Hill and Severn lodes and stockworks, and the Montana massive sulphide carbonate replacement (Renison style) deposit. All the known tin deposits remain open at depth, with other exploration targets such as Golf Course remaining to be tested.

It is inferred that mineralisation continues below the base of the existing drilling, particularly at Severn and Montana. There is also room for a depth extension to the north at Queen Hill. It has been demonstrated that cassiterite grain size increases with depth, as does pyrrhotite content, with both grade and metallurgical amenability expected to improve as a result.

All of the prospects are believed to be located above a deep-seated Devonian granite stock. It is likely that beneath the limit of existing drilling, which reached 400m depth, there is a considerable amount of prospective host rocks and structures above, and/or adjacent to the granite.

During 2010/11 work focussed on infill drilling at Queen Hill to obtain samples for metallurgical testing and exploration for near surface extensions to the known mineralisation at Queen Hill, Stormsdown and Montana. During 2011/12 exploration activity has focused on the Severn deposit, both infill drilling and testing extensions to the known mineralisation. Other targets defined by detailed by a detailed magnetics survey carried out in March will also be evaluated.

Studies carried out during the year have included on-going metallurgical test work, a mineragraphic study of the Severn mineralisation, commencement of environmental studies and a mine scoping study carried out by Mining One Consultants based on the resource study they completed in 2011.

1.2. GEOLOGICAL SETTING

The oldest rocks at RL 5/1997 are the Queen Hill Quartzites, a sequence of sediments and volcanics equivalent to the Neoproterozoic Oonah Formation, the oldest stratigraphy in the Zeehan area. These are predominantly quartzites with some interbedded arenaceous siltstones and shales. The upper part of the Oonah Formation is predominantly pelite and/or carbonate, including some evaporites, mafic volcanic rocks and conglomerate.

Overlying the Quartzites is a sequence of Precambrian dolomites, carbonaceous pyritic slates and minor volcanics equivalent to the Success Creek Group. This group comprises reddish brown siltstones with intercalated limestone's and dolomite being referred to locally as the Poverty Point Beds. These beds correlate to that part of the Success Creek Group, which hosts the Renison replacement tin deposits. The Success Creek Group rocks are overlain by the Cambrian Crimson Creek Formation, comprising basal pyroclastic volcanics overlain by a sequence of greywackes and argillites with minor tuffaceous slates and grits.

Ordovician Gordon Limestone crops out north east of Queen Hill while Siluro-Devonian Eldon Group sandstones and siltstones underlie most of the Zeehan town site. The Devonian Heemskirk Granite outcrops 7 kilometres west of Zeehan, forming Mt Heemskirk, with a ridge of granite believed to extend beneath Queen Hill at depth.

At Zeehan the Oonah Formation and the Success Creek Group both host vein and replacement tin deposits. Tin mineralisation within the dolomitic Poverty Point Beds at Montana is of cassiterite-sulphide replacement style. Mineralisation at Severn may be similar, being due to smeared-out Poverty Point carbonates along the Severn Fault. Refer to Figure 5.

1.2.1. Structure

The structure of the rocks at Queen Hill is complex with intense folding and faulting at all scales. The deformation is thought to be due to the Tabberabberan Orogeny. Broadly the Zeehan tin deposits are associated with the wide hinge zone of the northwest trending Heemskirk Anticlinorium, which is thought to have been the focus of the intrusion of the Heemskirk Granite at depth in this area.

Two major Devonian deformational events are recognised in the project area. The initial D₁ event is expressed as moderately doubly plunging NE-trending tight to isoclinal folds with weak fabric development. The D₂ event produced upright, generally SE-plunging folds with moderate to strong fabric development. A third structural event D_{2L} is recognised and overall these events produced six sets of faults in the sequence. The southern end of a major D₂ fracture zone between the D₂ Zeehan

Syncline and the Heemskirk Anticlinorium appears to be the locus for a late stage intrusive phase of the Heemskirk Granite. Hydrothermal fluids emanating from or around this intrusive have focused along faults, shears and zones of fracturing. Where fluids reached reactive stratigraphy (i.e. sulphide, carbonate or volcanoclastic horizons) cassiterite-bearing tin sulphide bodies have developed. Intersection of the more ductile S2 and S3 sets provided the best sites for mineralisation, as evidenced by the Severn and Queen Hill deposits.

1.2.2. Mineralisation

Tin mineralisation at the Heemskirk Tin Project occurs as cassiterite and minor stannite in the three main deposits: Severn, Queen Hill and Montana, and at a minor outcropping occurrence at Golf Course. The deposits are Renison Bell/Cleveland-type tin deposits in which granite-derived hydrothermal fluids carrying tin, sulphur and other base metals intruded along structural conduits and reacted with suitable lithologies such as dolomite and carbonate rich volcanoclastic horizons to precipitate generally sulphide-rich lodes containing cassiterite. Typical associated gangue minerals include pyrite, pyrrhotite, quartz, tourmaline, carbonates and fluorides. The granite source of the hydrothermal fluids has not been intersected in drill holes in the immediate project area, however based on geophysical evidence and the presence of rare felsic porphyry intrusives a granite stock is interpreted to lie some 900m below the present surface.

The predominance of pyrite over pyrrhotite is a significant point of difference between the Zeehan and Renison Bell deposits, however, at depth pyrrhotite becomes more abundant at Zeehan. In addition to the main high temperature tin-mineralising event, a later stage, cooler fluid event appears to have resulted in the formation of Pb-Zn-Ag sulphide lodes (Taylor's and Clarke's Lodes), which are not significantly tin-bearing. These lodes were the focus of early 20th century silver-lead mining activity.

In all the Zeehan deposits cassiterite occurs as fine grained (20 - 70 microns) disseminations in stockworks and masses of fine-grained gangue comprising siderite, chlorite, silica, pyrite and pyrrhotite. At Queen Hill there is also variable accessory stannite and base metal sulphides. Pyrite now forms about 30% of the sulphides but microscopy indicates that an original major pyrrhotite content has been replaced by pyrite and marcasite. This has resulted in only the pyrrhotitic core of the Severn deposit remaining magnetic.

The **Queen Hill Deposit** comprises two sub-parallel high-grade lenses within a single larger lower grade envelope. These lenses are an upper lens, "the hanging wall lens"; relatively narrow (3 to 8 metres), essentially massive sulphide (pyrite dominant), replacement-type mineralisation, dipping at 50° to 80°, and "the lower lens"; a wide composite zone containing narrow high-grade mineralisation. Significant tin mineralisation occurs in volcanics, clastic sediments and evaporites. The hanging wall lens is adjacent to a fault zone, which is coincident with Clarke's Ag-Pb lode. The mineralisation may not be closed off at depth. The Queen Hill deposit crops out weakly on the northwestern side of Queen Hill and is hosted by the Poverty Point Beds.

The **Severn deposit** occurs as several parallel pseudoconformable lenses of bedding slip sulphide replacements and stockworks within a 130m wide drag zone in the hanging wall of the Severn Fault. The fault zone has an en-echelon shape resulting from the intersection of northwest and northeast trending fracture sets. The Poverty Point Beds appear to be displaced 500m across the Severn Fault zone by substantial strike slip movement. The resultant geometry of the tin mineralisation at Severn is tabular and is located close to, or at, the apparent angular unconformity between the Oonah beds and the Success Creek and Crimson Creek sequence. At 0.5% Sn cut-off the upper part of Severn deposit is narrow and has a short strike length, but is high grade. Both thickness and strike length increase with depth with the deposit being open at depth.

Montana is a high grade, stratiform carbonate replacement tin deposit comprising cassiterite and massive sulphides hosted by the Poverty Point Bed equivalents of the Success Creek Group, the Montana Beds. Montana is narrow near surface (2.5 to 5.0 metres) and has a strike length of approximately 80m. The upper levels were accessed historically to a depth of approximately 150m. The deepest intersection, in drill hole M76, 300m below surface, is 1.6% Sn over an estimated true width of 6m. The deposit is open at depth.

1.3. LICENCE

Tenement number: RL 5/1997

Tenement name: Zeehan

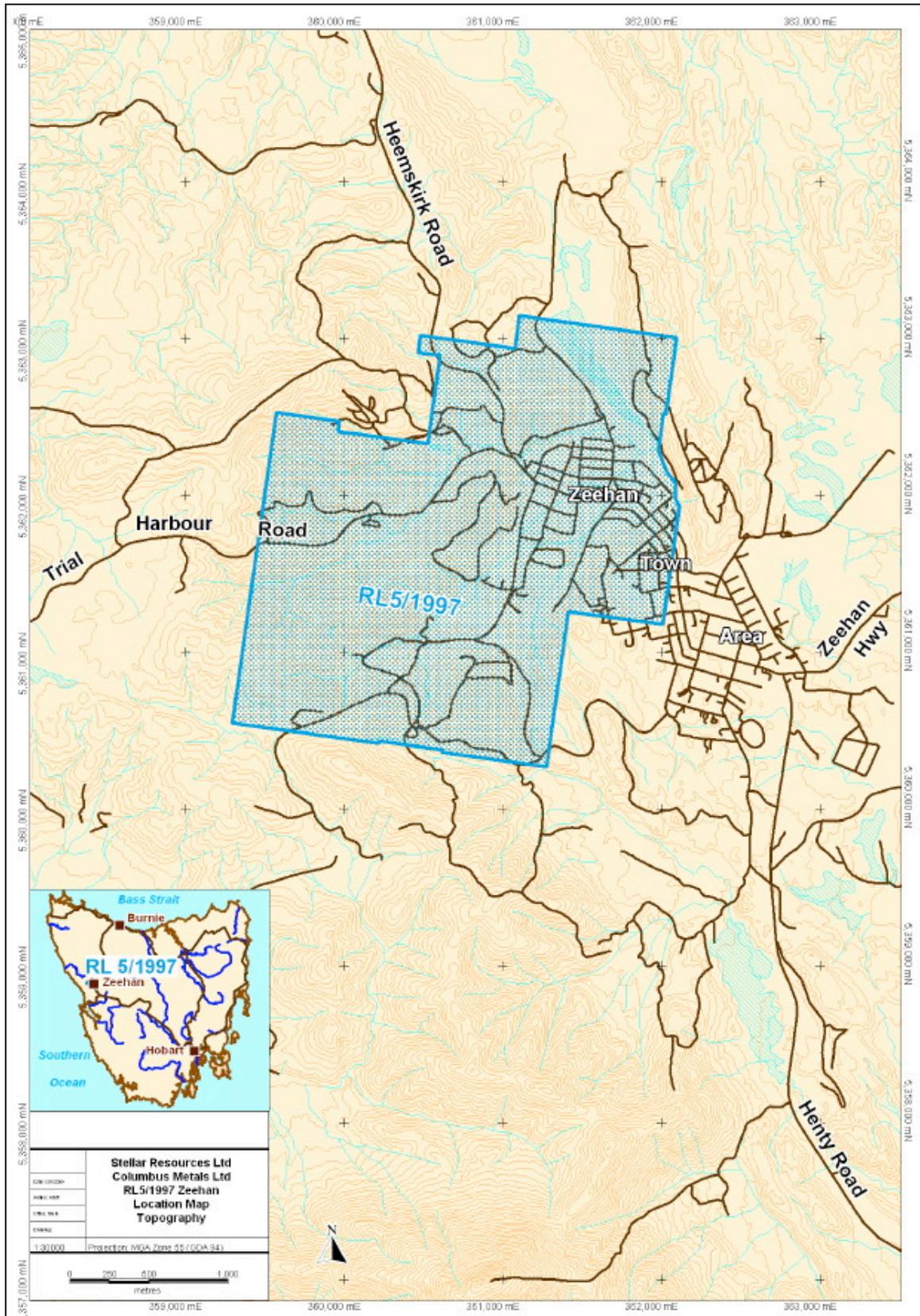
Tenement location: Located over the western side, and immediately west, of Zeehan Township, with main road access from the Heemskirk Road, the Zeehan Highway and the Trial Harbour Road, which passes generally through the centre of the licence (Figure 1). Numerous town roads and tracks traverse the licence area. The licence covers an area of 6km², which extends west from the council depot on the Zeehan Rivulet for 3.5 kilometres, past the golf course, and north for 3 kilometres from Manganese Hill to Montana Hill. The RL area is a mix of Crown Land and freehold land, including a large portion of the Zeehan Township.

The area comprises both cleared urban or farm land and regrowth forest after logging or burning. Refer to Figure 2.

Reporting period: 20 May 2011 to 19 May 2012.

Tenement holder: Columbus Metals Ltd., a wholly owned subsidiary of Stellar Resources Ltd.

1.4. LOCATION OF LICENCE



• Figure 1. RL 5/1997, Heemskirk Tin Project: Location Map

1.5. LAND TENURE

SCHEDULE:

LAND DISTRICT OF MONTAGU
VICINITY OF ZEEHAN
MUNICIPALITY OF WEST COAST
RETENTION LICENCE 9705 6 SKM
COLUMBUS METALS

Datum: AGD66, Zone 55.

Commencing at the southwest corner at grid coordinates 359,180 metres E 5,360,366 metres N, thence northerly to 359,458 metres E 5,362,347 metres N, easterly to 359,857 metres E 5,362,291 metres N, southerly to 359,848 metres E 5,362,227 metres N, again easterly to 360,412 metres E 5,362,148 metres N, again northerly to 360,491 metres E 5,362,712 metres N, westerly to 360,352 metres E 5,362,731 metres N, again northerly to 360,368 metres E 5,362,840 metres N, again easterly to 360,962 metres E 5,362,757 metres N, again northerly to 360,991 metres E 5,362,965 metres N, again easterly to 361,981 metres E 5,362,825 metres N, again southerly to 361,913 metres E 5,362,335 metres N, again westerly to 361,898 metres E 5,362,337 metres N, again southerly to the Zeehan Rivulet at approximate grid coordinates 361,866 metres E 5,362,113 metres N, thence by that Rivulet in a general southeasterly direction to approximate grid coordinates 362,000 metres E 5,361,738 metres N, again southerly to 361,894 metres E 5,360,995 metres N, again westerly to 361,300 metres E 5,361,079 metres N, again southerly to 361,160 metres E 5,360,088 metres N, again westerly to 360,502 metres E 5,360,181 metres N, again northerly to 360,504 metres E 5,360,196 metres N, again westerly to 360,108 metres E 5,360,251 metres N, again southerly to 360,106 metres E 5,360,237 metres N, thence again westerly to the point of commencement.

The area excludes 4 ha of Crown Reserves. Refer to Figure 2.

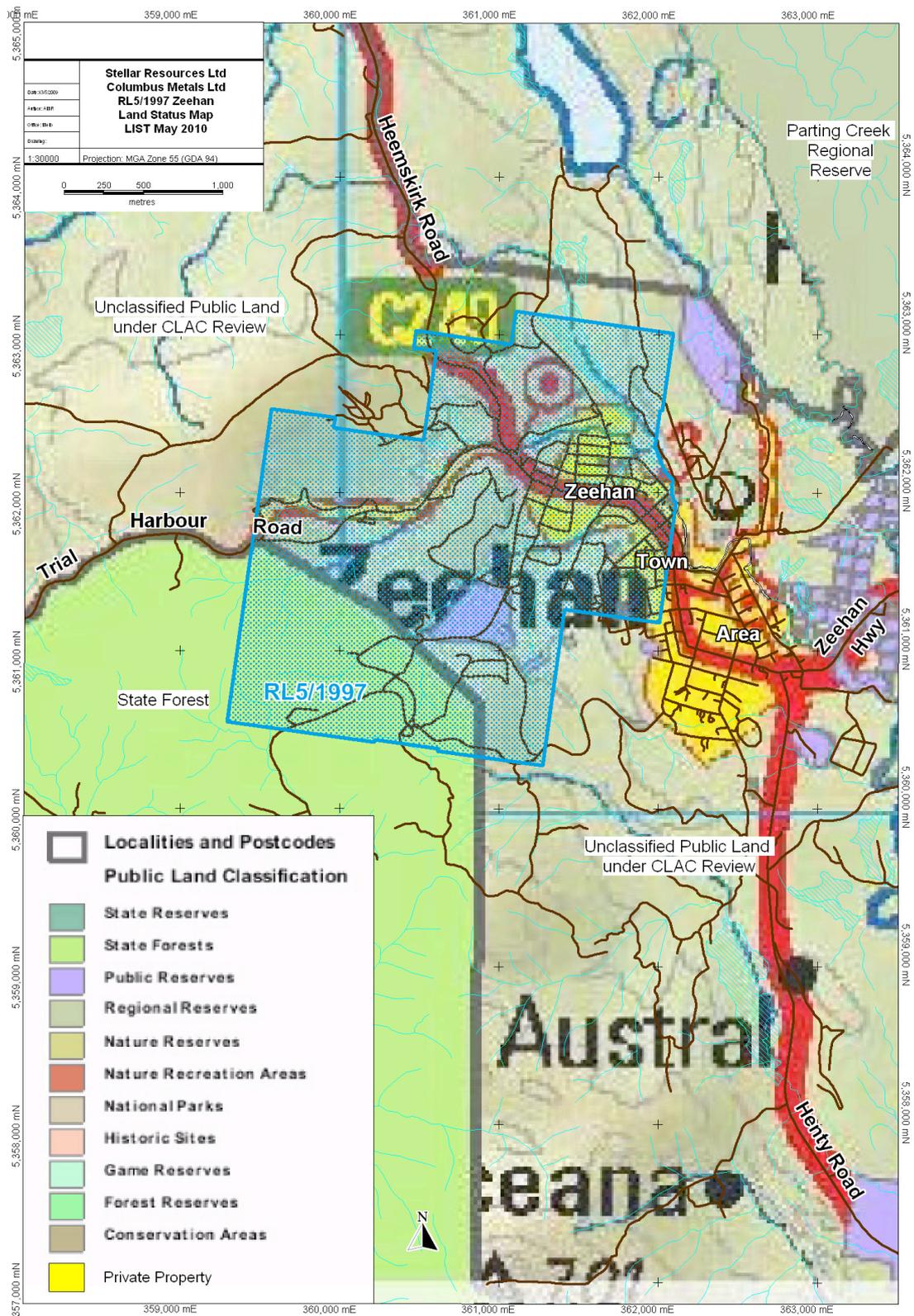
LAND TENURE:

The area comprises: Crown Land and Private property.
NB: This land tenure table is a guide only.

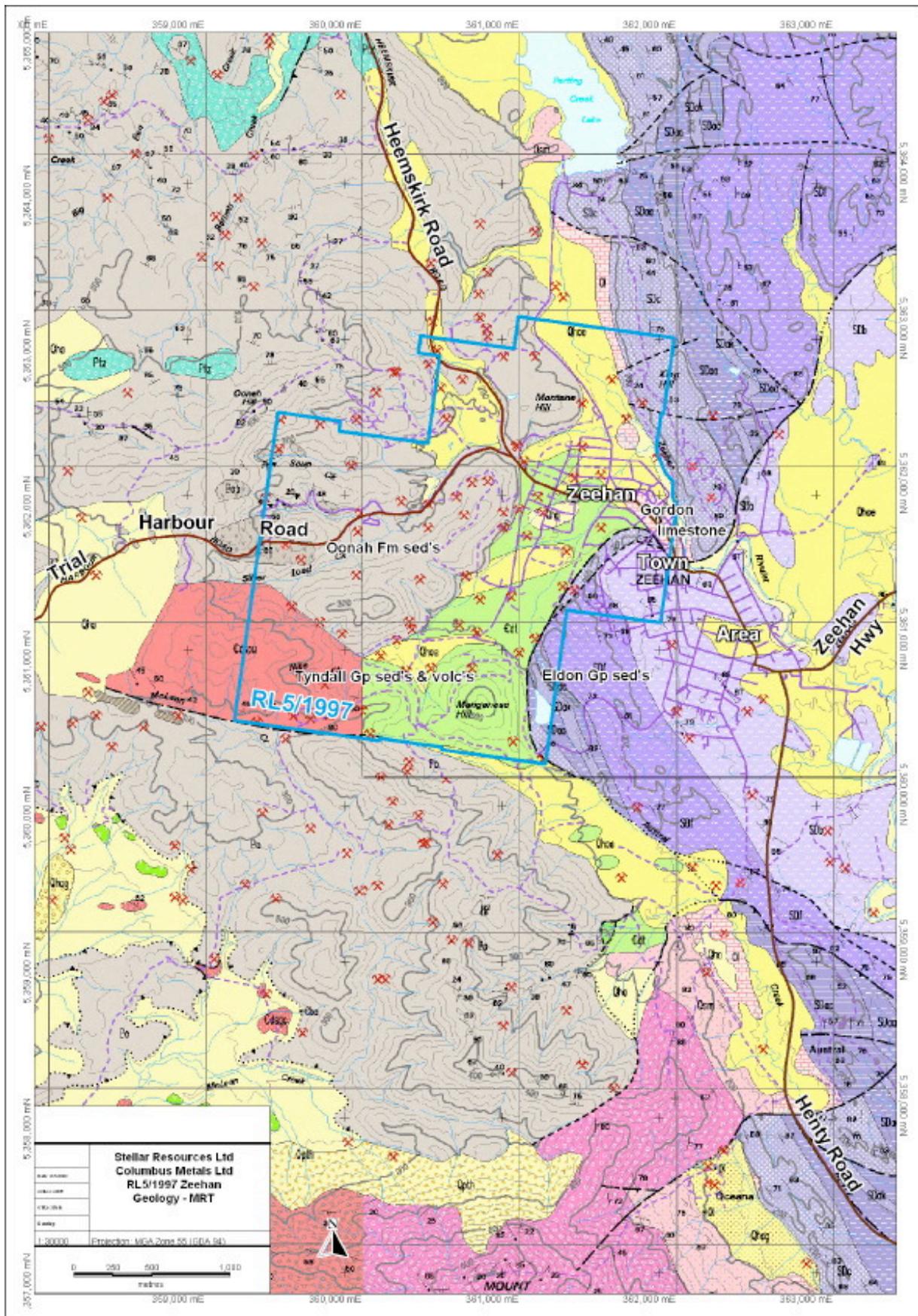
EXCLUSIONS:

The area covered by this licence does not include:

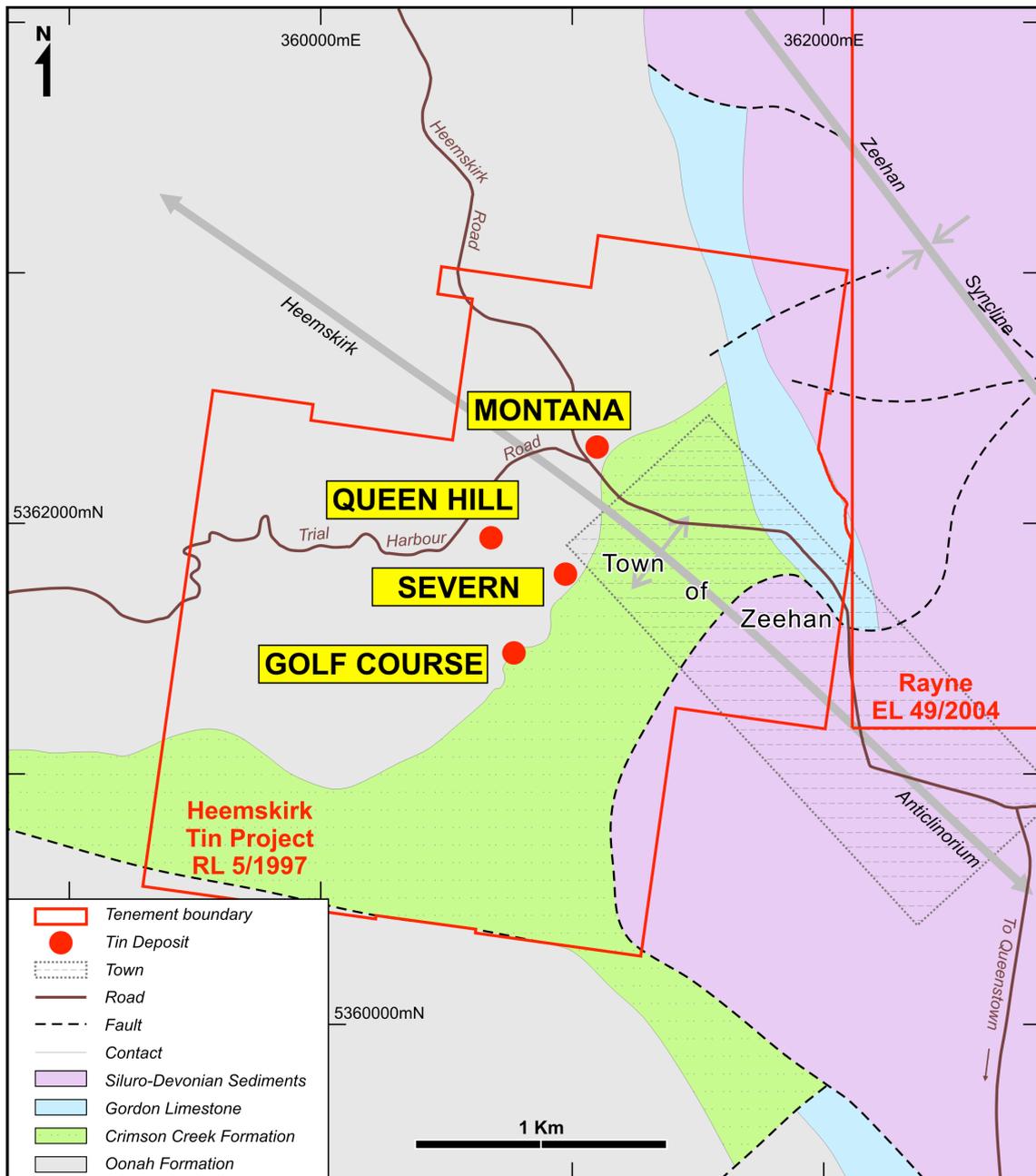
- (a) All forms of mineral tenements including mining leases, retention licences and exploration licences, which were applied for or in force prior to the date of application for this licence.
- (b) Land exempt from the provisions of the *Mineral Resources Development Act 1995*.
- (c) Land reserved under the *National Parks and Wildlife Act 1970* including National Parks, Historic Sites, Nature Reserves, Game Reserves and State Reserves shown on the Schedule.
- (d) Crown reservations or other land set apart or dedicated for any public purposes such as public reserves, municipal reserves or roadways unless such areas have been brought under the provisions of the *Mineral Resources Development Act 1995*.



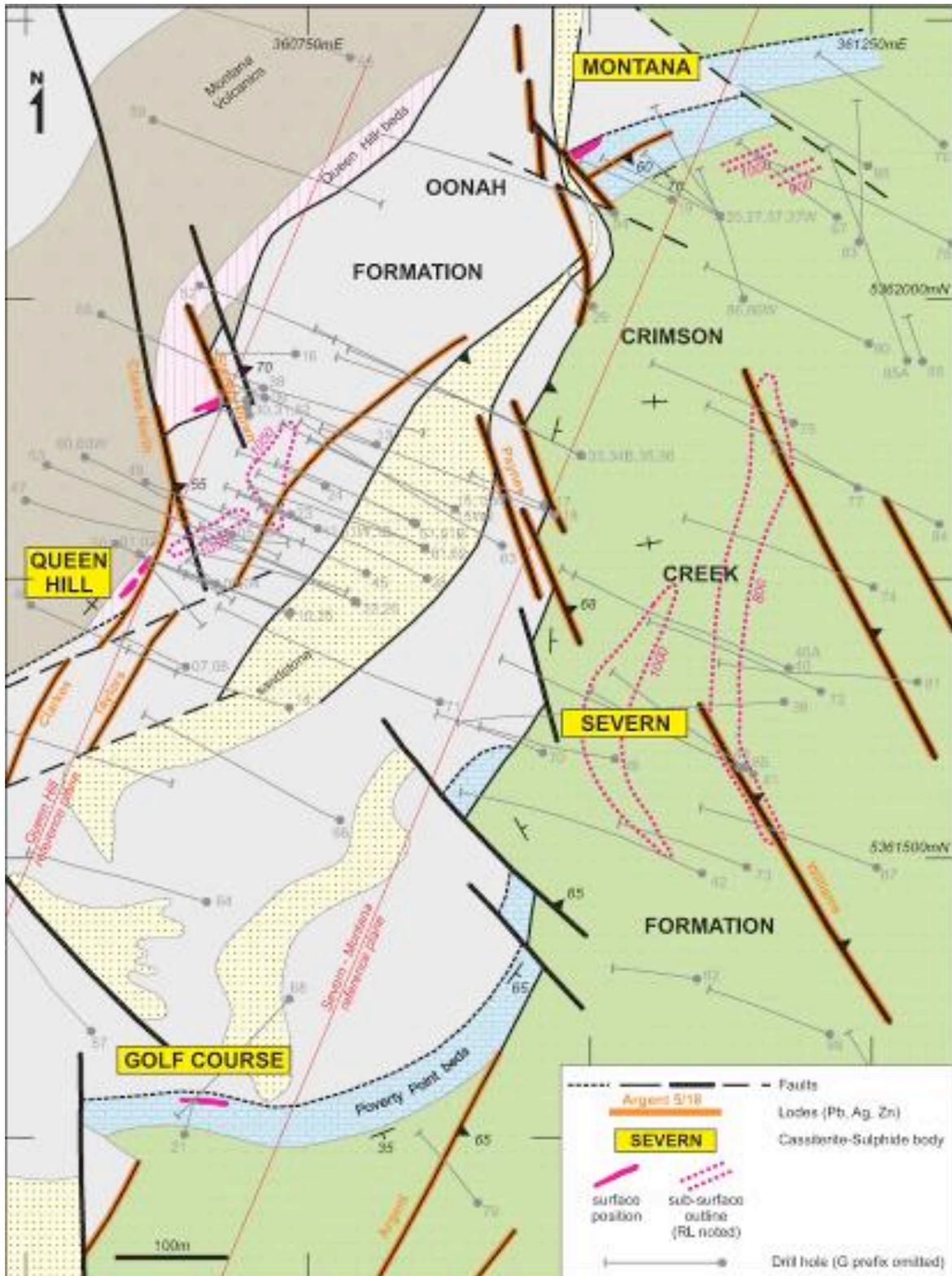
• Figure 2. RL5/1997, Heemskirk Tin Project: Land Tenure Map (LIST)



• Figure 3. RL5/1997, Heemskirk Tin Project: MRT Geology Map.



• Figure 4. RL5/1997, Heemskirk Tin Project: Simplified Geology showing deposit locations



• Figure 5. RL5/1997, Heemskirk Tin Project: Geology, Structure, Deposits & Historic Drilling

2. REVIEW OF PREVIOUS WORK

The majority of previous exploration work for tin at Zeehan was carried out by Aberfoyle in the 1970's and 1980's culminating in the delineation of 7.3 million tonnes of mineralisation at an average grade of 0.69% Sn together with 10.9 g/t Ag. Higher-grade zones within this mineralised envelope were reported as 3.61 million tonnes @ 1.21% Sn.

This work was undertaken in a Joint Venture first signed on 27 March 1972 between Cominco Exploration Pty Ltd (Aberfoyle) and Gippsland Oil and Minerals NL (now Gippsland Limited). This JV saw Aberfoyle's interest confirmed at 60% with the right to 70% equity in the project by completing an acceptable feasibility study.

Queen Hill was discovered in the late 1960's, when cassiterite was recognised in massive pyrite mineralisation exposed in old silver-lead mines. The drilling of a magnetic anomaly, located some 300m eastwards from Queen Hill, led to the discovery of the larger Severn deposit in 1976. Early exploration focussed on Queen Hill and continued sporadically throughout the late 1970's and early 1980's. Characterisation of ore from the upper Queen Hill lode showed it to comprise sulphides (mainly pyrite), carbonates, fluorite and silicates. The tin mineral was mainly cassiterite, which occurred in extremely fine particles (15 microns) disseminated throughout the ore, 60% in sulphide and the remainder in other gangue. The most promising route for beneficiation seemed to be standard mineral dressing methods to gain acceptable recoveries of the cassiterite into low grade concentrate and upgrade this by a pyro-metallurgical matte fuming. In June 1980 a bulk sample of ore from Queen Hill (2,892 tonnes) was excavated and sent to the Aberfoyle matte fuming pilot plant at the Kalgoorlie nickel smelter. Test work successfully produced a high-grade tin matte from this material. No further work was done due to the collapse in the tin price in 1985. The pilot plant and technology were subsequently sold to Mt Isa Mines Limited.

On 1 August 1981 an amalgamation of seven previous leases over the Queen Hill area was undertaken and CML 36/M/81 was granted for an area of 564ha for a period of 21 years. In 1997 this mining lease was converted into the 6km² retention licence RL 5/1997.

The exploration program at Queen Hill identified deeper mineralisation below Queen Hill and at Severn and Montana. Metallurgical characterisation test work on these deposits showed them to be more amenable to conventional mineral dressing than the Upper Queen Hill ore. Amenability was judged on cassiterite grain size, ease of liberation, and response to gravity and flotation separation. In particular the Severn ore responded better than some of the fine-grained ores at the Renison Bell Tin Mine when subjected to similar unit processes employed in the Renison Concentrator (Severn has an average grain size of 65 microns while some of the Renison Fault ores have an average grain size of 50 microns). This offers an option to process these ores by standard mineral dressing methods and produce a saleable gravity concentrate for a recovery estimated at 71.5%.

By 1982, Aberfoyle had completed 89 diamond drill holes totalling 23,000m and comprehensive data compilation and resource estimation was undertaken which resulted in a Pre Feasibility Study report issued in May 1983. The report concluded that the Zeehan Tin Project had potential for profitable underground mining. The project was never taken through to a bankable feasibility study however, as work was halted in 1984 due to the imposition of export quotas on tin concentrates by the Association of Tin Producers.

Drilling ceased on the Heemskirk Tin Project in June 1982 but technical assessment by Aberfoyle geologists continued; in particular John Anderson undertook research studies towards a PhD degree. A number of new conceptual targets were generated and resulted in the completion of a series of EM geophysical surveys and two final drill holes for a total of 1,320m in 1989-90. The present conceptual model for the Zeehan Deposits, which illustrates the potential for significant additional resources, is based largely on John Anderson's research work.

Aberfoyle was taken over by Western Metals Limited (Western Metals) in 1998. Over the ensuing years, Western Metals remained heavily focused upon its base metals projects and no work was undertaken at Zeehan. Stellar purchased Western Metals interest in the Zeehan Project in 2008.

Commencing in 2010 Stellar Resources drilled 5 shallow diamond drill holes into the Queen Hill Deposit to both obtain fresh mineralised material for metallurgical testing and to better define the upper extent and nature of the Queen Hill mineralisation. This was followed in 2011 by 3 more holes into Queen Hill, 3 holes into the Stormsdown area, 3 holes into the upper portion of the Montana

Deposit and one hole and wedge below the Severn Deposit. Drilling was then suspended until Stellar acquired Gippsland Minerals 40% equity in the Heemskirk Project early in 2012.

During 2010 mining consultants, Mining One carried out a JORC compliant resource estimation of the Project. Both historic and the 2010 drill results were reviewed and used for this estimate. The results are tabulated below in Table 1.

• **Table 1. Heemskirk Tin Project: 2010 JORC Resource Estimate (Mining One Consultants)**

Mineral Resources		
0.6% Sn cut-off grade		
Indicated Mineral Resources		
Queen Hill	1,600,000 tonnes	1.2% Sn
All Indicated Mineral Resources	1,600,000 tonnes	1.2% Sn

Inferred Mineral Resources		
Montana	360,000 tonnes	1.6% Sn
Severn	2,400,000 tonnes	0.9% Sn
All Inferred Mineral Resources	2,760,000 tonnes	1.0% Sn

Indicated + Inferred Mineral Resources		
All Mineral Resources	4,360,000 tonnes	1.1% Sn

- The estimates of mineral Resources were made using diamond drill hole assays within the interpreted mineralisation. All samples were composited to 1metre lengths and no top-cuts were applied. Bulk densities were based on estimated sulphur grade, where this was available, or were set to 3.3 tonnes per cubic metre for Queen Hill, 3.9 tonnes per cubic metre for Zeehan Montana and 3.2 tonnes per cubic metre for Severn. The grade estimates of the Mineral Resources were made using an inverse distance squared algorithm.
- The Mineral Resources were based on a cut-off grade of 0.6% Sn which was based on a tin price of US\$30,000 per tonne and reasonable assumptions for exchange rate, costs and modifying factors including mining recovery, mining dilution and metallurgical recovery.

Metallurgical testwork carried out by Burnie Research Laboratory tested Queen Hill core composites. Assessments included analytical, mineralogical and flotation assessments for each and was based on a Renison style flowsheet. This initial metallurgical test work showed that the process required to treat upper Queen Hill mineralisation is compatible with that operating 18 kilometres away at the Renison Bell mill. Testwork is ongoing.

Stellar acquired Gippland Ltd's interest in the project in early 2012 to gain 100% of the project.

3. EXPLORATION COMPLETED DURING THE REPORTING PERIOD

3.1. DATA ACQUISITION & ANALYSIS

During the reporting period Stellar has continued to review historic data from Western Metals Ltd and other sources including privately held Aberfoyle historic data. Refer to Appendix 3 for maps generated from this data.

3.2. GEOPHYSICS

Thompson Aviation of Griffith, NSW, carried out a new high-resolution helimagnetic survey in March 2012, using a helicopter mounted Geometrics G822-A Caesium Vapour Magnetometer. Data was acquired at 25m line spacing and 35m flying height. The survey outline is shown in Figure 6. Specifications are outlined and data generated are attached in Appendix 4.

3.3. DRILLING

The 2011 drilling program was completed in October 2011 with the drilling of:

- 2 holes north of the Stormsdown Pit at Queen Hill (ZQ102 & ZQ103)
- 3 holes at the Montana Deposit (ZM104 to ZM106), and
- 1 hole with one wedge under the Severn Deposit (ZS107 & ZS107W)

These 7 holes delivered the assay results tabulated below in Table 2.

• **Table 2. Heemskirk Tin Project: 2011 Drilling Assays***

Hole No.	From (m)	To (m)	Interval (m)	Sn %	AS Sn %	Cu %	Pb %	Zn %	Ag ppm	Comment
ZQ102	65.0	71.0	6.0	0.35	0.01	0.01	1.30	3.60	40	75 – 78m Stope, Lost Hole
ZQ103	93.0	95.0	2.0	0.34	0.02	0.02	0.43	7.09	21	
ZM104	27.0 31.0	28.0 32.0	1.0 1.0	0.01 0.37	0.00 0.00	0.00 0.13	6.86 0.10	0.23 7.20	345 48	Poor Recovery (34%) Lost hole @ 91m
ZM105	60.0 106.0 150.5	67.0 110.0 152.5	7.0 4.0 2.0	0.09 0.23 1.57	0.00 0.01 0.02	0.00 0.01 0.00	0.25 2.83 2.30	2.11 1.66 9.00	17 126 62	
ZM106	-	-	-	-	-	-	-	-	-	
ZS107	-	-	-	-	-	-	-	-	-	509 – 567m Py & Po Stockwork
ZS107W	427.0 531.0 550.0	428.0 537.0 551.0	1.0 6.0 1.0	1.20 1.09 0.88	0.00 0.00 0.00	0.09 0.04 0.08	0.00 0.00 0.00	0.02 0.01 0.01	7 2 4	426 – 433m Py & Po Stockwork 529 – 537m Py & Po Stockwork

* Fused beads XRF; **reported interval is down hole.

Drilling was then suspended while Stellar negotiated to purchase Gippsland Ltd.'s interest in the Project. Drilling recommenced on 1st March 2012 following the acquisition of Gippsland's interest.

The 2012 program is focussed on testing the Severn Deposit at depth and infill drilling of the known deposit. To date six diamond drill holes, four primary and two wedge holes, have been completed for a total of 1730 metres. Holes ZS109 and ZS111 tested the western edge of the Severn resource envelope while ZS110 was designed to infill to the northeast of these holes. An initial, deeper hole was also drilled on the western edge (ZS 108) to test for parallel lodes. The results of this work are summarised below in Table 3.

• **Table 3. Heemskirk Tin Project: 2012 Drilling Assays***

Hole No.	From (m)	To (m)	Interval (m)	Sn %	AS Sn %	Cu %	Pb %	Zn %	Ag ppm	Comment
ZS108	417.0	418.0	1.0	0.62	0.00	0.05	0.06	0.09	5	291 – 333m Py, Sp, & Gn S/W 374 – 419m Pyrite Stockwork
ZS109	162.0	164.0	2.0	0.63	0.04	0.17	0.08	0.03	32	158 – 197m Pyrite Stockwork 197 – 283m Py & Po Stockwork
	188.0	191.0	3.0	0.71	0.01	0.05	0.08	0.23	6	
	235.0	236.0	1.0	2.84	0.02	0.12	0.00	0.00	5	
	251.0	254.0	3.0	0.59	0.01	0.09	0.00	0.00	6	
	275.0	282.0	7.0	0.50	0.01	0.04	0.00	0.00	1	
	285.0	286.0	1.0	1.59	0.01	0.04	0.00	0.00	4	
ZS110	255.0	263.0	8.0	0.92	0.01	0.05	0.37	0.43	9	245 – 368 Py & Po Stockwork
	324.0	331.0	7.0	0.80	0.01	0.05	0.00	0.00	2	
	336.0	344.0	8.0	1.77	0.01	0.05	0.00	0.00	2	
ZS110W	300.0	301.0	1.0	2.43	0.01	0.08	0.01	0.01	320	299 – 341m Po & Py Stockwork 341 – 369m Pyrite Stockwork
	324.0	331.0	7.0	1.20	0.01	0.07	0.01	0.01	1	
	335.0	337.0	2.0	0.79	0.01	0.08	0.13	0.09	4	
	361.0	367.0	6.0	1.21	0.01	0.04	0.00	0.00	1	
ZS111	217.0	218.0	1.0	2.24	0.01	0.04	0.00	0.00	1	172 – 271m Pyrite Stockwork
	233.0	235.0	2.0	0.72	0.01	0.10	0.00	0.01	4	
ZS111W	214.0	215.0	1.0	0.76	0.01	0.02	0.00	0.00	1	191 – 272m Pyrite Stockwork
	227.0	235.0	8.0	1.59	0.01	0.10	0.00	0.01	4	

* Fused beads XRF; **reported interval is down hole.

Summary drill results are tabulated in Appendix 1, with all logs appended in digital form in Appendix 5.

A further four holes are planned for the Severn Deposit each intersection with a wedged hole for geostatistical and sampling purposes. Two holes are planned to test the Queen Hill Deposit at depth and a further two holes to test the western edge of the Montana Deposit. Drilling will also test targets generated from the new magnetic survey. The current program will continue into 2013.

3.4. MINE SCOPING STUDY

Mining One Pty Ltd (Mining One) was commissioned by Stellar Resources to undertake a scoping study on the economic extraction of the Heemskirk Tin deposits based on the Resource Study they completed in 2010. This was completed in August 2011.

The scoping study concluded that a 600,000 tpa operation producing 3,900 tpa of tin in concentrate provides an attractive return on investment of 21% at a long-term tin price and exchange rate of US\$25,000/t and A\$/US\$1.00 respectively. The project is also well positioned on the industry cost curve with cash costs of US\$12,780/t.

The scoping study assumes pre-production capital expenditure of US\$108m which includes the benefit of excellent infrastructure within close proximity. It also includes underground mine development, a processing plant, tailings dam and ancillary infrastructure. All other assumptions are shown in Table 4.

The scoping study is attached as Appendix 6.

• **Table 4. Heemskirk Tin Project: Mining One Scoping Study Assumptions**

Parameter	Units	Assumption	Comment
Mine life	years	7.6	minimum life
Mining dilution	%	15	typical for underground mines
ROM grade	%	0.93	average resource grade is 1.1%
Treatment rate	tpa	600,000	drawing from all three deposits
Recovery	%	70	target rate
Tin in concentrate	tpa	3,900	average annual production rate
Concentrate grade	%	50	typical grade
Tin price (net)	US\$/t	22,500	net of 10% smelting charge
Exchange rate	US\$	1.00	
Operating cash cost*	US\$/t tin	12,780	43% operating margin
Operating cash cost	US\$/t ore	83	ore milled
Capital cost*	US\$m	108	pre-production capital

*Accuracy of cost estimates is +/- 30%

3.5. MINERAGRAPHY

MODA (McArthur Ore Deposit Assessments P/L) carried out a mineragraphic assessment of tin mineralisation from the Severn Deposit during the year. 14 samples were selected from 7 drillhole intercepts (Aberfoyle & Stellar) as a representative suite of the mineralisation. Polished thin sections were prepared from each half-core sample with the offcuts submitted for assaying and Quantitative X-Ray Diffraction Analysis (QXRD).

The assessment was undertaken in two stages: quantitative logging and qualitative photographic mineragraphy. During all scans, the textural style of each grain was recorded to allow production of grain maps. These maps allow ready comparison of the liberation of the cassiterite between the 14 samples. The standard mineral liberation and association parameters were calculated and presented in summary spreadsheet form. Cumulative yield (grade-recovery) curves were calculated for Sn at the simulated 53µm “grind” for each sample.

About 15 representative photomicrographs were taken of each sample at various scales, to document the mineragraphic textures. These were annotated in PowerPoint format. These photographs concentrate on the sulphides mineralisation. For each of the sulphide minerals, several textural types have been recognized and these have been semi-quantified.

The MODA Severn Deposit Mineragraphy Report is presented as Appendix 7.

3.6. METALLURGICAL TEST WORK

Burnie Research Laboratory (BRL) has continued to test the ores from the Queen Hill Deposit throughout the year. The current testwork is focussed on improving the flotation response for both sulphide rejection and tin float concentrate grade and recovery. Gravity and leach assessments are also in progress. Results to date are presented in summary form below.

- Sulphide Flotation Assessment: Both composites behave in a similar manner in sulphide flotation. 10% of feed cassiterite remains in the sulphide concentrate, a moderate proportion of this cassiterite is free and potentially recoverable. Tin loss has been reduced to a 7-12% recovery loss with a rejection of some 82% of feed sulphur. This leaves a non-sulphide stream of 61% mass with 1.40% Sn and 6.6% S for tin recovery treatment.
- Tin Flotation Assessment: A concentrate of 8.0%Sn (60% recovery), 28%Fe and 16%SiO₂ are best to date. This fine sized rougher/single cleaner concentrate may be best treated by acid leaching for up-grade of tin values.
- Gravity Assessment: Gravity tin recovery is acceptable at 71% from feed but iron carbonates

strongly dilute the concentrate in all fractions tested. Better upgrades may be achieved by reducing the top size to 106µm and stage regrinding middlings. Further assessment required.

- Leach Assessment: Leaching of carbonates from low-grade float concentrate has been demonstrated to give high tin upgrade ratio. Remaining gangue are resistant silicates that will need to be separated. Test a combined gravity conc / tin float conc leach. Test a silicate prefloat prior to tin flotation.

The BRL Metallurgy Testwork Report is attached as Appendix 8.

3.7. ENVIRONMENTAL STUDIES

During the period, Stellar Resources engaged John Miedecke and Partners to review the status of the project, complete a preliminary environmental assessment and commence baseline environmental studies.

These studies include:

- Surface water quality and hydrology;
- Groundwater quality; and
- Waste rock, ore and tailings geochemistry

The surface water studies have commenced and include the following:

- Collation of all historical data and review for design of program;
- Quarterly water and flow sampling in the Pea Soup catchment;
- Identification and documentation of contamination sources; and
- Documentation of existing pollutant loads from the catchment as a basis of existing conditions.

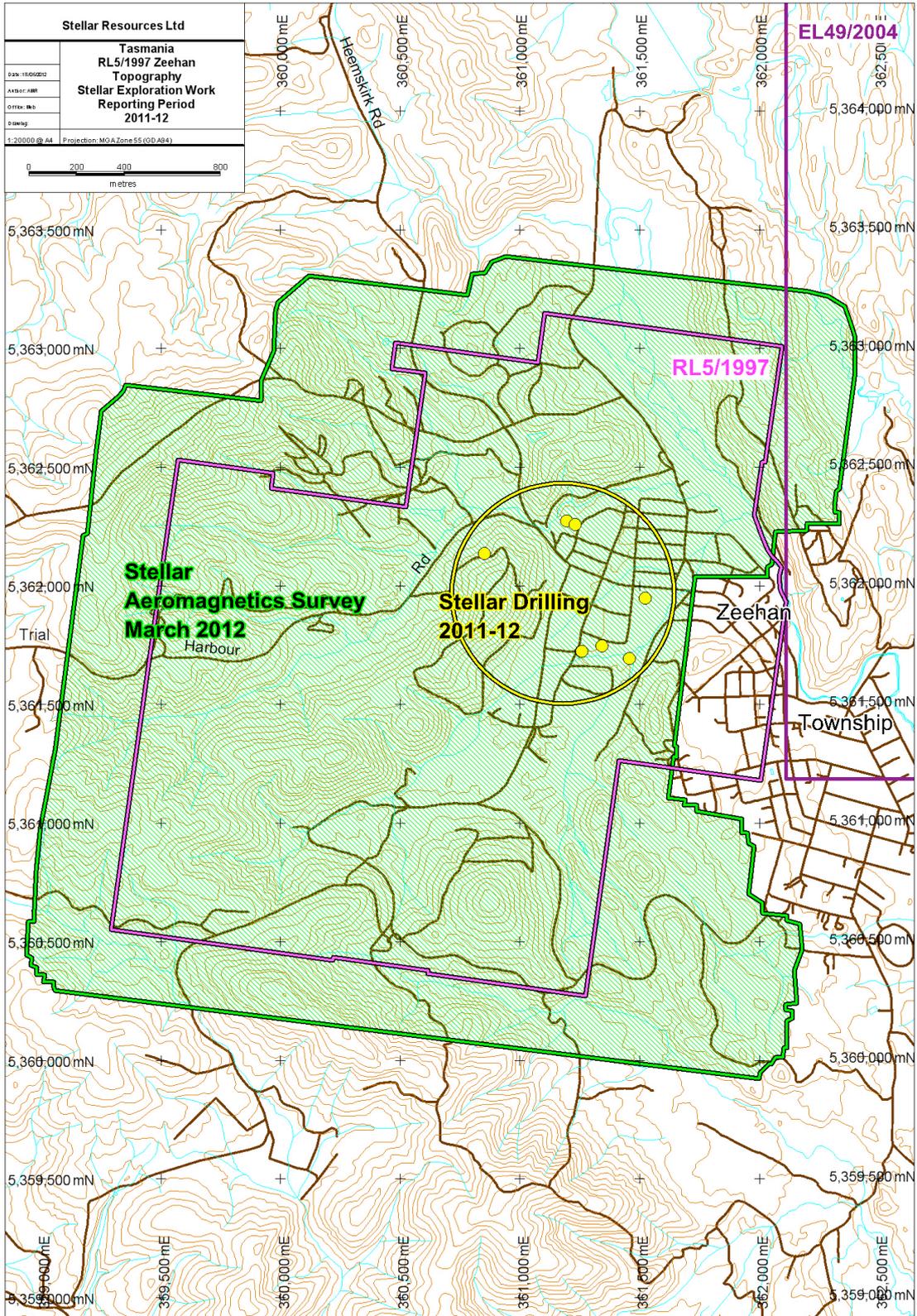
Some studies commissioned by MRT have been reviewed and the water quality data placed in a database. This has provided some information on the existing contaminant sources and loads from acid drainage sources within the Zeehan mineral field.

Seven surface water-monitoring stations have been established in the catchment likely to be the site of mine facilities (Refer to Figure 12). Two sample periods have been conducted to date.

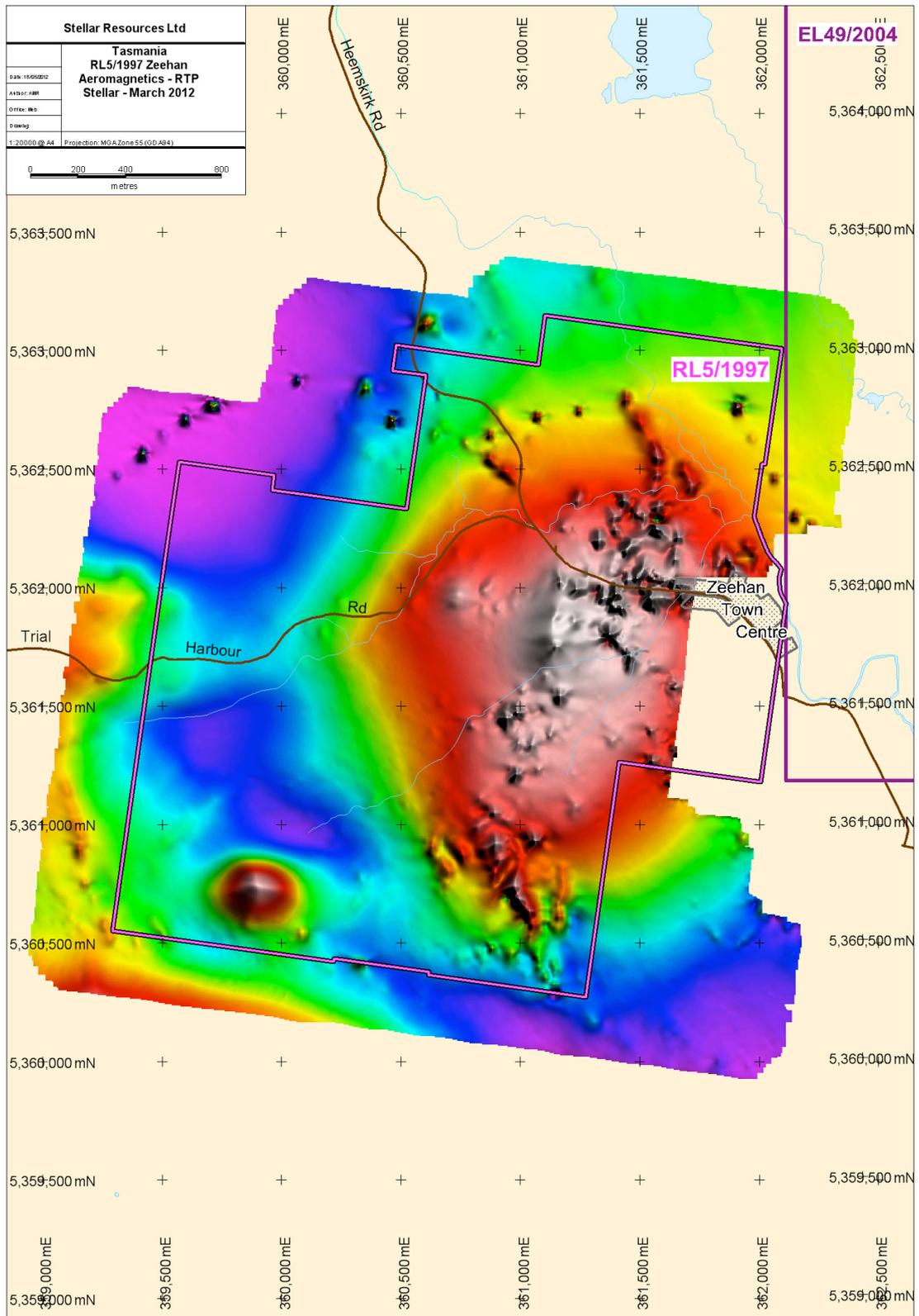
Table 5 shows a summary of the results to date.

• Table 5. Heemskirk Tin Project: Surface Water Quality Sampling Results

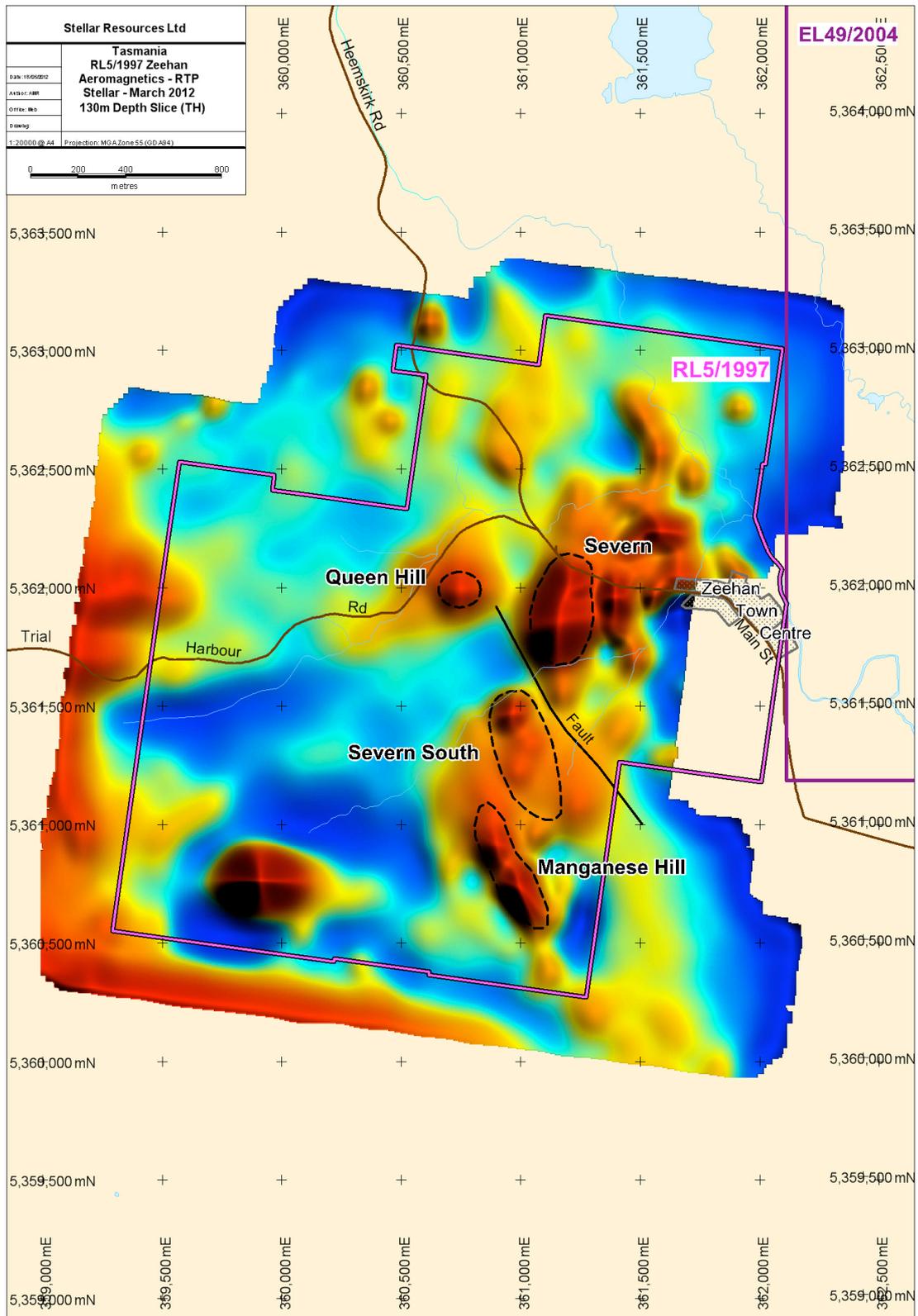
Summary of Various Water Quality Parameters Stellar Heemskirk Tin Project			
February 2012 data	February Sampling		
Site	Silver Lead Creek above #4 Shaft. Contribution % of Loads at Bridge	Queen No 4. Contribution % of Loads at Bridge	Other contaminant source from catchment - uncertain location
Mass Loads	CoI		
Acidity to pH 8.3 kg/Day	4%	5%	92%
Aluminium (Dissolved) as Al kg/Day	3%	3%	94%
Aluminium (Total) as Al kg/Day	4%	3%	93%
Calcium (Total) as Ca kg/Day	32%	2%	66%
Chloride as Cl kg/Day	45%	0%	55%
Conductivity Field (Factor)	19%	2%	80%
Copper (Dissolved) as Cu kg/Day	3%	1%	96%
Copper (Total) as Cu kg/Day	3%	1%	96%
Dissolved Organic Carbon kg/Day	51%	0%	49%
Iron (Dissolved) as Fe kg/Day	3%	10%	87%
Iron (Total) as Fe kg/Day	5%	9%	87%
Lead (Dissolved) as Pb kg/Day	1%	1%	98%
Lead (Total) as Pb kg/Day	2%	1%	97%
Magnesium (Total) as Mg kg/Day	28%	1%	70%
Manganese (Dissolved) as Mn kg/Day	15%	3%	83%
Manganese (Total) as Mn kg/Day	15%	2%	83%
Nickel (Dissolved) as Ni kg/Day	10%	2%	87%
Nickel (Total) as Ni kg/Day	11%	2%	87%
Potassium (Total) as K kg/Day	45%	1%	54%
Sodium (Total) as Na kg/Day	51%	0%	49%
Sulphate as SO4 kg/Day	5%	3%	92%
Total suspended solids (0.45um) kg/Day	7%	0%	93%
Zinc (Dissolved) as Zn kg/Day	5%	4%	92%
Zinc (Total) as Zn kg/Day	5%	4%	91%
loads are expressed at % of loads at the gauging station at bridge			
April 2012 data			
Site	Silver Lead Creek above #4 Shaft. Contribution % of Loads at Bridge	Queen No 4. Contribution % of Loads at Bridge	Other contaminant source from catchment - uncertain location
Mass Loads	CoI		
Acidity to pH 8.3 kg/Day	3%	30%	67%
Aluminium (Dissolved) as Al kg/Day	2%	14%	84%
Aluminium (Total) as Al kg/Day	2%	13%	84%
Arsenic (Dissolved) as As kg/Day	4%	28%	68%
Arsenic (Total) as As kg/Day	2%	22%	76%
Calcium (Total) as Ca kg/Day	20%	9%	70%
Chloride as Cl kg/Day	38%	3%	59%
Conductivity Field (Factor ^{ns})	12%	8%	80%
Copper (Dissolved) as Cu kg/Day	1%	3%	96%
Copper (Total) as Cu kg/Day	1%	2%	97%
Iron (Dissolved) as Fe kg/Day	4%	61%	35%
Iron (Total) as Fe kg/Day	5%	56%	39%
Lead (Dissolved) as Pb kg/Day	1%	4%	95%
Lead (Total) as Pb kg/Day	1%	4%	95%
Magnesium (Total) as Mg kg/Day	20%	7%	73%
Manganese (Dissolved) as Mn kg/Day	13%	13%	74%
Manganese (Total) as Mn kg/Day	13%	14%	74%
Nickel (Dissolved) as Ni kg/Day	8%	11%	81%
Nickel (Total) as Ni kg/Day	7%	11%	82%
Potassium (Total) as K kg/Day	32%	5%	63%
Sodium (Total) as Na kg/Day	40%	3%	57%
Sulphate as SO4 kg/Day	11%	16%	73%
Total suspended solids (0.45um) kg/Day	7%	0%	93%
Zinc (Dissolved) as Zn kg/Day	4%	17%	79%
Zinc (Total) as Zn kg/Day	4%	16%	4%



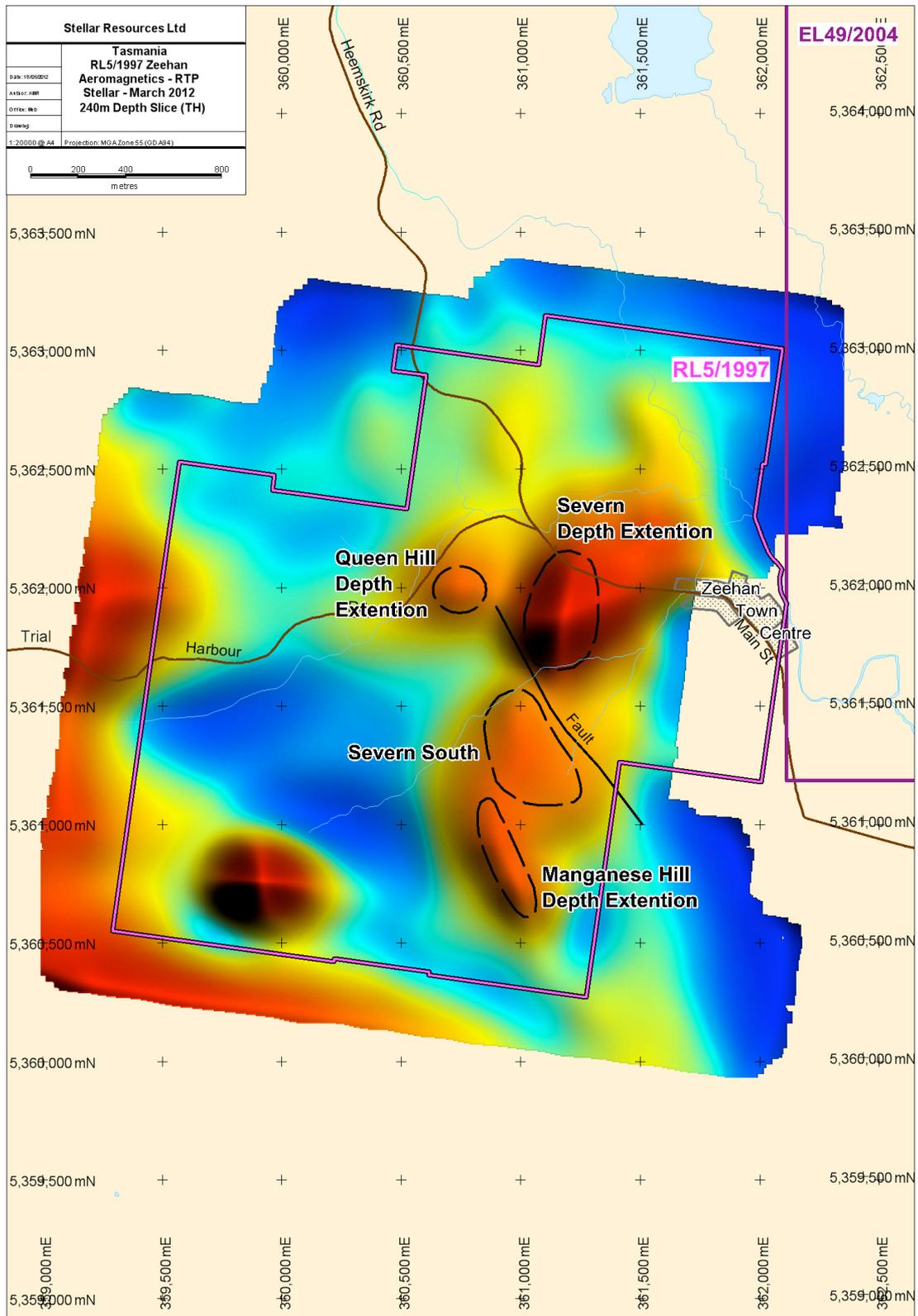
• Figure 6. RL5/1997, Heemskirk Tin Project: Stellar Exploration for the Reporting Period



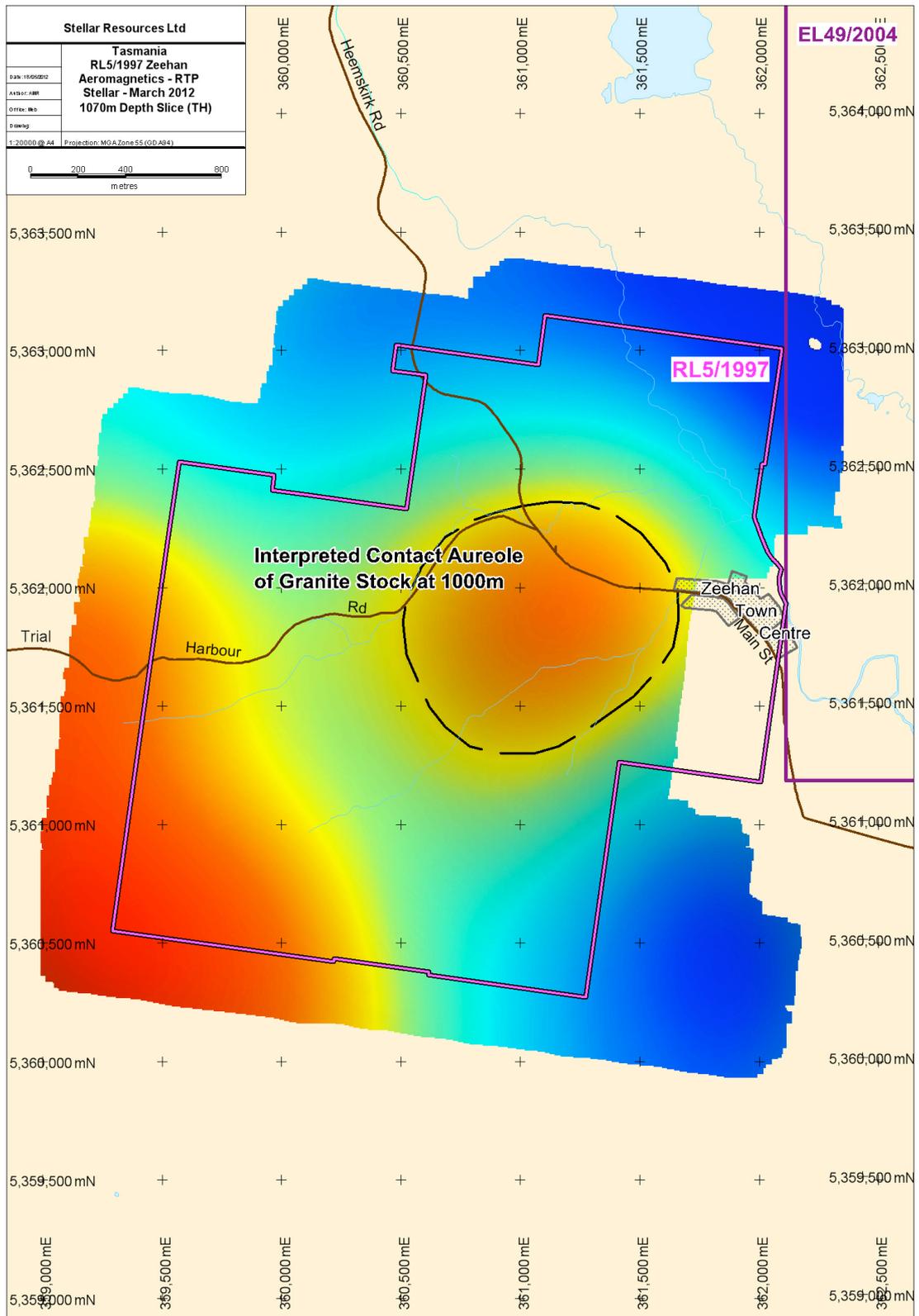
• Figure 7. RL5/1997, Heemskirk Tin Project: Stellar Aeromagnetic Survey – RTP



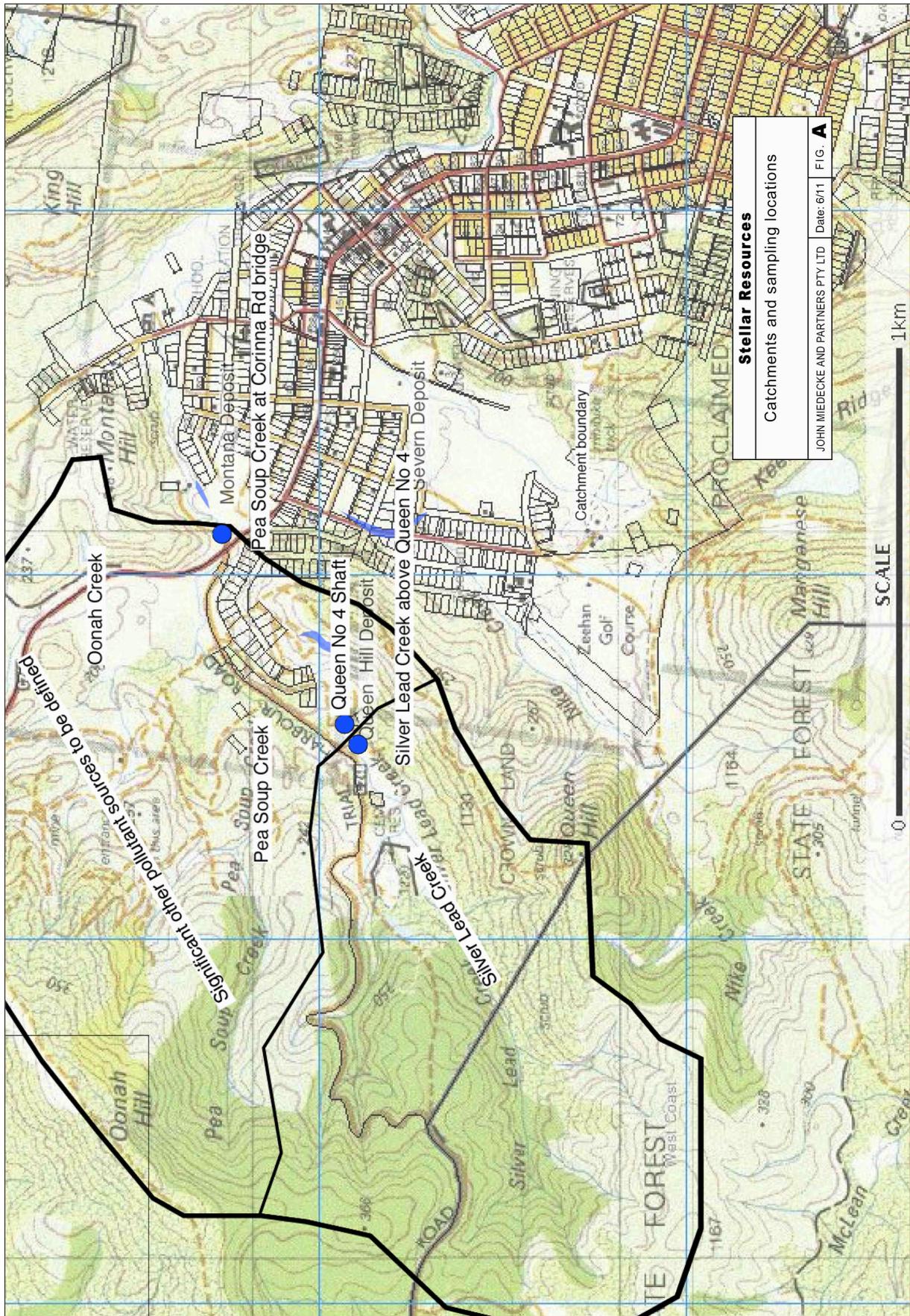
• Figure 8. RL5/1997, Heemskirk Tin Project: Stellar Aeromagnetic Survey – RTP 130m Depth Slice



• Figure 9. RL5/1997, Heemskirk Tin Project: Stellar Aeromagnetic Survey – RTP 240m Depth Slice



• Figure 10. RL5/1997, Heemskirk Tin Project: Stellar Aeromagnetic Survey – RTP 1070m Depth Slice



• Figure 12. RL5/1997, Heemskirk Tin Project: Water Catchments & Sampling Stations

4. DISCUSSION

4.1. GEOPHYSICS

Initial processing in the form of forward modelling and frequency depth analysis has been carried out. Preliminary results are shown in Figures 7 to 10.

The 130m depth slice (Figure 8) shows the outline of known magnetic sulphides at Queen Hill and Severn and opens the possibility of repetition of these to the south at Severn South, although the majority of this target is thought to lie closer to the 240m depth level. Further exploration targets have been identified at Manganese Hill in the south and at Montana Northwest.

Frequency analysis identified further magnetic sources at the 240m depth level (Figure 9) lying beneath the known Queen Hill and Severn deposits and importantly also to the interpreted faulted off, southern extension of Severn (Severn South).

The 1070m depth slice (Figure 10) clearly outlines what is interpreted to be the contact aureole to the underlying granitic stock, thought to be the source of mineralising fluids which formed the tin orebodies.

A constrained inversion of the high-resolution helimag data is being undertaken in order to identify drill targets at depth below Queen Hill and Severn and also to target holes at Severn South, Manganese Hill, Montana Northwest and Queen Hill West.

4.2. DRILLING

Holes ZQ102 and ZQ103 were drilled in section 100m north of the Queen Hill deposit. The purpose of the holes was to test down plunge below the Stormsdown surface mineralisation (where a 4m channel chip sample graded 1.5% tin) to determine the potential for a parallel mineral zone to Queen Hill.

The results in Table 2 show that a zone of tin mineralisation does exist. Importantly, the presence of lead, zinc and silver mineralisation has the potential to enhance the value of this zone. The tonnage potential of this zone is unknown and further drilling is required to demonstrate extent and continuity.

ZM104 and ZM105 were drilled in section along the eastern edge of the Montana deposit to determine whether the mineralisation extends to the surface and to sample the main tin lode. A third hole, ZM106, was drilled 40m to the east of this section but was only weakly mineralised, limiting the potential to add tonnage in this direction. Montana remains open to the west and at depth where some of the best historical intersections were achieved.

ZM105 provided the best result with a 2m intersection in the main tin lode grading 1.57% tin from 150.5m. Silver, lead, zinc and tungsten mineralisation add value to the intersection. The intersection of tungsten for the first time suggests vertical zoning of the mineralisation and underlines the potential to significantly upgrade the value of the Montana deposit with deeper drilling.

ZM104 showed that the tin mineralisation at Montana does extend closer to the surface than previously estimated. However, further drilling, particularly to the west will be required to develop a greater understanding of its geological position as it appears to be either a parallel lode or a faulted repetition of the main lode intersected in ZM105.

Diamond drill hole ZS107 intersected low-grade tin mineralisation in a pyrrhotite/pyrite zone 150m below the deepest historical drill hole in the Severn Deposit, ZS84, and possibly near the northeastern edge of this zone.

ZS107W was wedged from ZS107 and intersected the pyrrhotite/pyrite zone 20m up-plunge from ZS107. The assay results for ZS107W in Table 3 show that the pyrrhotite/pyrite zone contained a 6m interval of mineralisation grading 1.1% tin from 531m. This is a significant intersection and for the first time demonstrates that ore-grade tin occurs at depth below the known resource at Severn.

ZS108 intersected a 10 metre iron sulphide alteration zone but contained low grade tin mineralisation with a best intersection of 0.6% tin over 1 metre from 417 metres. Poor ground conditions prevented the drilling of a wedge hole. Until other deeper holes are drilled the result is considered inconclusive.

ZS109 intersected a 100 metre wide zone of sulphide alteration on the western edge of Severn, 200 metres below the surface. Tin mineralisation occurs throughout the intersection with higher grade intervals summarised in Table 3. The thickest zone averaged 0.5% tin over 7 metres from 275 metres. Difficult ground conditions prevented drilling of a wedge hole.

ZS110 is one of the best holes drilled at Heemskirk to date. Three ore grade lodes were encountered with the deepest of these averaging 1.77% tin over 8 metres from 338 metres. This included a 1 metre intersection of 8.94% tin. A second lode lies 5 metres above the first and averages 0.8% tin over 7 metres from 324 metres. A third lode averaging 0.78% tin over 8 metres from 255 metres was encountered 60 metres above the second lode.

ZS110W, a wedge hole drilled from 290 metres down ZS110, intersected the two lower lodes and confirmed the high grade intercepts in ZS110. The lower lode averaged 1.21% tin over 6 metres from 361 metres with the upper lode averaging 1.20% tin over 7 metres from 324 metres.

ZS111 was drilled to the southwest of ZS109 and also provided a 7 metre zone averaging 0.5% tin from 211 metres. A wedge hole drilled from 200 metres down hole provided a higher grade intersection of 1.59% tin over 8 metres from 227 metres down hole. The variability between these holes is interpreted to reflect close proximity to the margin of the tin lode.

Diamond drill holes ZS109 and ZS111 were designed to identify the western boundary of the upper part of Severn. Both holes intersected mineralisation with an average grade marginally below the 0.6% cut-off in an extensive zone of iron sulphide alteration.

Stellar has recently commenced three dimensional modelling of the Severn intersections to demonstrate continuity between holes and ultimately to upgrade the resource estimate. Importantly, this work should demonstrate the relationship between the high grade intersections in ZS110 and those of surrounding holes.

4.3. MINERAGRAPHY

The variety and diversity of mineral textures observed in the 14 Severn samples strongly suggest a complex depositional history with deformational events superimposed over probable multiple mineralising episodes. Dr. McArthur stated that this sample suite would be one of the most texturally complex sets of samples he has ever examined. From a practical sense this would suggest any potential plant feed from this deposit would show a high variability in mineral composition and mineral liberation/association characteristics. A high density of sampling may be required.

Dr. McArthur concluded:

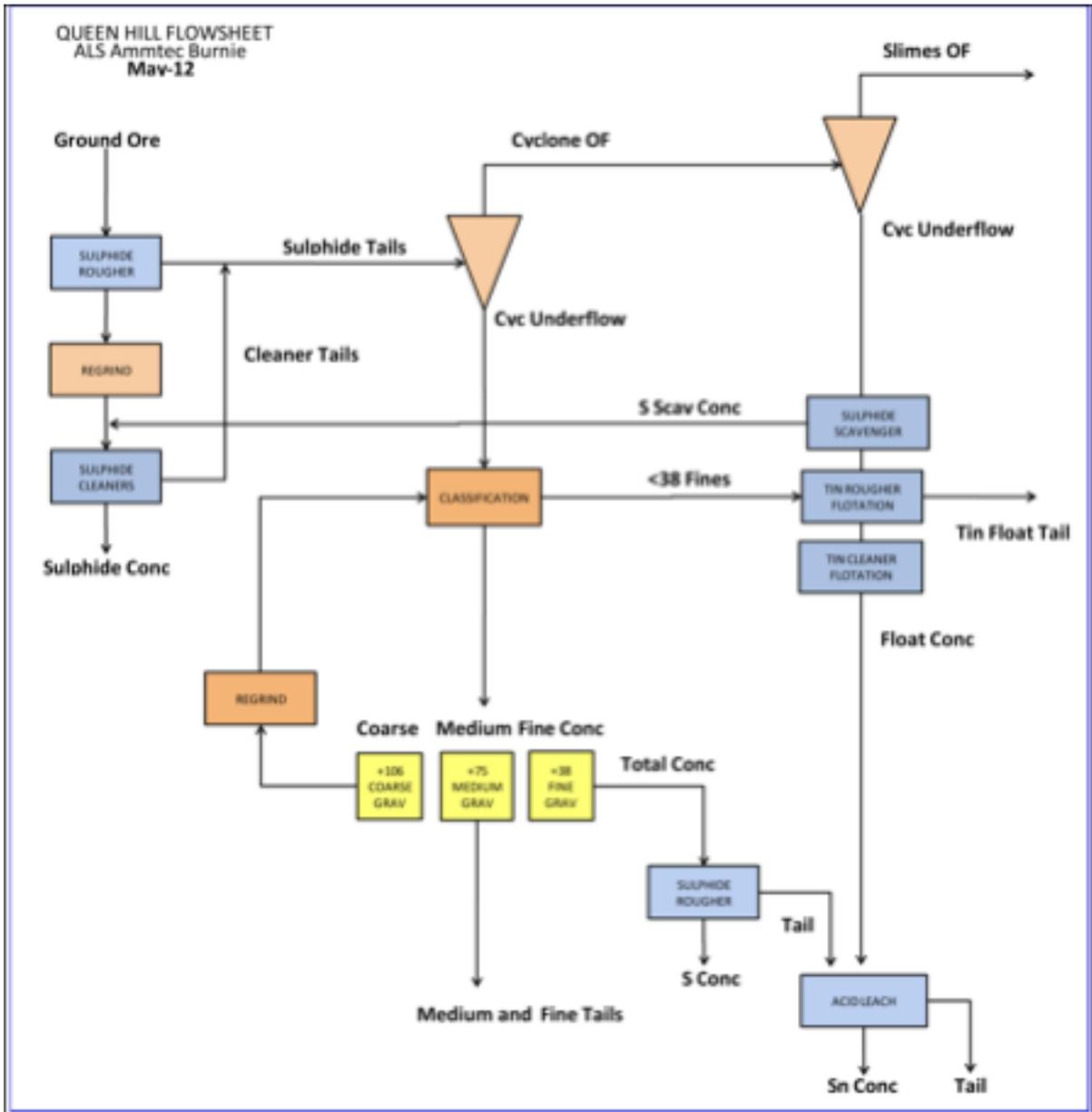
- 14 samples from Severn drill core were examined in detail to measure mineral composition and liberation characteristics, and in a qualitative sense to categorise the microtextures observed
- The Severn mineralisation is both mineralogically and texturally complex which will translate into mill feed variability
- The cassiterite present is generally of a medium grainsize which should fully liberate at an approximate 30µm grind
- Bismuth and fluorite may present some penalty issues if a Cu concentrate is planned

4.4. METALLURGICAL TEST WORK

The flow sheet presented as Figure 13 has been developed as testing has progressed. This is the result of extensive testing in each of the circuit areas. Further refinements are in progress including silica rejection in tin float, gravity locked cycle and more detailed leach kinetic testing.

4.5. ENVIRONMENTAL STUDIES

The old MRT data and data from the two sample periods conducted to date have confirmed that significant contamination exists in the Pea Soup catchment from old mine workings. Data further highlighted the main sources of contamination as being to the north of Queen Hill and the recommended location for project facilities



• Figure 13. RL5/1997, Heemskirk Tin Project: BRL Metallurgy Testwork Flow Sheet

5. CONCLUSIONS & PROPOSED WORK

The Heemskirk Tin Project comprises three structurally controlled and replacement tin deposits with substantial scope to both increase the size and quality of the known deposits and to add to this resource through the discovery of additional mineralisation at depth. The new aeromagnetic survey has identified several new targets such as Severn South, Queen Hill West, Montana Northwest and Manganese Hill.

A constrained inversion of the high-resolution helimag data is being undertaken in order to identify drill targets at depth below Queen Hill and Severn and also to target holes at Severn South, Manganese Hill, Montana Northwest and Queen Hill West. A staged exploration program is underway to test the known lodes, extend their boundaries and test new exploration targets to discover new deposits.

5.1. DEVELOPMENT TARGETS

Severn Deeps

It is proposed to drill a further three infill holes into the Severn Deposit and two to three holes outside the deposit model boundaries to extend the deposit.

Queen Hill Deeps

The Queen Hill Deposit has been thoroughly drill tested but remains open at depth. It is proposed to test for depth extensions to the deposit by drilling up to two deep holes under the known deposit by drilling from the east side of Queen Hill.

Montana

The Montana Deposit although high grade is the smallest of the known Heemskirk Project deposits. It is open to the west and down dip. It is proposed to test the western edge of the deposit via two diamond drill holes.

5.2. EXPLORATION TARGETS

Severn South

The aeromagnetic survey has indicated that there is a magnetic body south of the known Severn Deposit. This may be a faulted off extension of the Severn Deposit and will be tested by two drill holes later this year.

Queen Hill West

The magnetic data indicates a small, near surface magnetic body immediately west of the Queen Hill Deposit. This will be tested by a shallow diamond drill hole

Montana Northwest

There appears to be a small, shallow magnetic body north west of the Montana Deposit. This may be a faulted extension of the Montana Deposit. It will be tested by a shallow diamond drill hole.

Metallurgical test work will continue with testing of Severn Deposit mineralization as it becomes available from drilling.

Environmental studies will also continue throughout the year.

6. ENVIRONMENT

All drill holes are being capped: the 2010 holes with wooden plugs and cement, and the 2011 holes with Van Ruth Plugs and cement.

All of the drill sites on Queen Hill have been cleaned and the sumps filled in but the tracks have been left open for future grid drilling access.

The Montana drill sites and the ZS107 site have been rehabilitated. It is proposed to fill in the 2012 Severn drill sumps as holes are completed but the sites will be left for further grid drilling over the next year.

7. EXPENDITURE

Printed At: 19/06/2012 9:38:56 AM		Transaction Report Columbus Metals Limited		Page: 1
Job No	Job Details	Department	Class	
Tran. Date		Doc Ref - Description	Amount	
Job Code: GIP901	ZeehanTin - RL 5/1997	D1	GIP	
	1053	Technical	\$59,665.37	
Phase Total	105	STAFF COSTS	\$59,665.37	
	1061	Professional Technical	\$49,859.94	
	1062	Labour	\$31,032.50	
Phase Total	106	CONTRACT PERSONNEL	\$80,892.44	
	1072	Geoscientist	\$176,290.00	
	1074	Other	\$22,448.50	
Phase Total	107	CONSULTANT PERSONNEL	\$198,738.50	
	1151	Site Preparation	\$26,848.00	
	1154	Diamond	\$451,389.15	
Phase Total	115	DRILLING	\$478,237.15	
	1161	Assays	\$81,440.50	
Phase Total	116	ASSAYS	\$81,440.50	
	1201	Geophysical Airphoto Surveys	\$50,425.00	
	1202	Purchases of existing data	\$1,736,914.00	
Phase Total	120	DATA ACQUISITION	\$1,787,339.00	
	1251	Vehicle Costs All	\$22,763.16	
	1252	Office Costs	\$13,233.18	
	1253	Field Operations Consumables	\$76,849.63	
	1254	Safety Equipment	\$524.17	
Phase Total	125	SUPPORT COSTS	\$113,370.14	
	1303	Computing	\$4,000.00	
	1304	Drafting and Presentation	\$2,182.50	
Phase Total	130	DATA PROCESSING	\$6,182.50	
	1501	Purchase Costs / Stamp Duties	\$1,894,652.00	
	1504	Legal Costs	\$14,971.81	
	1505	Rents/ Other Utilities	\$14,406.00	
Phase Total	150	TENEMENT COSTS	\$1,924,029.81	
	1551	Meals and Accomodation	\$24,252.62	
	1552	Airfares	\$24,503.12	
	1553	Vehicle Hire	\$1,030.15	
	1554	General Expense	\$1,370.27	
Phase Total	155	TRAVEL	\$51,156.16	
	1651	Administration	\$418,584.00	
	1654	General Expenses	\$226.00	
Phase Total	165	OVERHEADS	\$418,810.00	
Job Total : GIP901	Class GIP		\$5,199,861.57	
Report Total:			\$5,199,861.57	

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Keywords

Location: Zeehan
Mineralisation environment: Sulphide Skarn
Minerals: Cassiterite, Stannite, Pyrite, Pyrrhotite, Magnetite
Exploration methods: Historic Research, Drilling, Metallurgical Testwork
Mine/prospect name: Heemskirk Tin Project, Queen Hill deposit, Severn deposit, Montana deposit
Stratigraphic name: Oonah Formation, Success Creek Group, Crimson Creek Formation, Gordon Limestone, Eldon Group, Heemskirk Granite
Lithologic name: quartzite, siltstone, shale, limestone, dolomite, granite
Geological Province: Dundas Trough
Geological age: Lower Neoproterozoic, Palaeozoic

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APPENDICES

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Appendix 1: Drilling Summary

Hole No.	Collar Co-ordinates (MGA)			Section No.	Azimuth (MGA)	Dip°	Start Date	End Date	Depth (m)	Core Size	Av. Rec	Geology & Mineralisation		Assay							Int. Rec.				
	Easting	Northing	R.L.									Interval (m)	Lithology	Interval (m)	Width (m)	% Sn	ASSn (ppm)	% Cu	% Pb	5 Zn		Ag (ppm)			
ZS111	361256.79	5361723.29	181.06	2980	290°	65°	30/4/12	23/5/12	352.0	HQ/NQ3	92%	0 - 150.5	Rolled												
												150.5 - 252.9	Black Shale, Volcaniclastic & Shale												
												172.0 - 271.2	Pyrite Stockwork	217.0 - 218.0	1.00	2.24	50	0.04	0.00	0.00		1	100%		
												252.9 - 271.9	Highly Altered Vic & Black Shale	233.0 - 235.0	2.00	0.72	95	0.10	0.00	0.01		4	100%		
												271.9 - 346.3	Shale, Volcaniclastic & Black Shale												
												346.3 - 352.0	Quartzite												
ZS111W	Wedged off ZS111 @ 191m			2980	292°	63°	24/5/12	6/6/12	280.3	BQ	99%	191.3 - 236.5	Black Shale, Volcaniclastic & Shale												
												191.3 - 271.5	Pyrite Stockwork	214.0 - 215.0	1.00	0.76	50	0.02	0.00	0.00		1	100%		
												236.5 - 239.3	Highly Altered Vic & Black Shale	227.0 - 235.0	8.00	1.59	50	0.10	0.00	0.01		4	99%		
												239.3 - 273.2	Shale, Volcaniclastic & Black Shale												
												273.2 - 280.3	Quartzite & Shale												

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Appendix 2: Analytical Methods



Burnie RESEARCH LABORATORY

A Division of AMMTEC Ltd ABN: 40 396 637 856
Hydrometallurgy Consultants & Flotation Technology Specialists

39 River Road, Wivenhoe, TAS 7320 PO Box 952, Burnie, TAS 7320 Tel: 61 3 6431 6333 Fax: 61 3 6431 6896

17th August 2010

Mr. Ray Hazeldene
C/- Stellar Resources

Dear Ray,

Re: BRL Analysis Methods.

Please find below a summary of analysis methods employed for the assay of Stellar Resources samples.

XRF Fused Bead Analysis (Sn, WO₃ & Fe)

The sample is mixed with a borate flux, pre-oxidised @ 700°C then fused @ 1200°C. The homogenous glass bead is presented to the Axios X-ray spectrometer for measurement against a calibration constructed from synthetic standards & verified using Certified Reference Materials.

AAS Analysis (Soluble Sn, Cu, Pb, Zn, Ag, Bi, Ni, As)

The sample is digested in a mixture of hydrochloric, nitric & perchloric acids; evaporated to dryness then re-dissolved in hydrochloric acid before being diluted to final volume. The unknown is then presented to the Varian AA-240 atomic absorption spectrophotometer for measurement against a calibration constructed from synthetic standards & verified using Certified Reference Materials.

Sulphur Analysis (S)

The sample is presented to the CS-2000 sulphur analyzer with the concentration being determined via infra-red detection of evolved sulphur trioxide. The calibration is constructed from Certified Reference Materials & verified using same.

Specific Gravity (SG)

The specific gravity of the sample is determined using an air pycnometer. Calibration is via a "calibration ball" of known SG value.

Yours Sincerely,

Ricky Gelston
Chief Chemist
Burnie Research Laboratory

Serving with Quality and Efficiency