Dundas Mining Pty Ltd
Annual Report on Exploration
EL 28/1988 “Mt Zeehan” Dec. 2018 to Dec. 2019

Grant MacDonald

Abstract

Work in the 2018/19 year has been somewhat impeded by the need to prioritise funding towards the reopening of the Avebury nickel and cobalt mine. For this reason no drilling was done during the reporting year.

However, work has still been undertaken on the tenement with the creation of a complete database (Note: Some B series holes at Burbank are incorrectly located on MRT's database), digitising of soil data and 3D modelling of the ultramafic bodies.

Work on the Avebury mine lease has focused on a feasibility study towards the reopening of the mine. Some of that work incorporated data from EL 28/1988 and the conclusions regarding the geology of the Avebury deposit, particularly the spatial controls and genesis of nickel, cobalt and arsenic mineralisation, is of major benefit to exploration for further Avebury style mineralisation on EL 28/1988.

An application for extension for 2 years has been submitted.
Should the two years be granted:

- First years work should involve an IP survey and drone magnetics survey over both blocks = $125,000
- Second year +400m's drilling including 100m on the North Pontiac block and 300m on the Trial Harbour block = $125,000.
  If two year granted total proposed expenditure is $250,000

(Note if earlier drilling is desired this can be targeted already with 300m proposed for Burbank and 100m at North Pontiac.)
Should only one year be granted then work will either consist of the IP and drone magnetics geophysical surveys, or if early drilling is required 300m will be drilled on the Trial Harbour block and 100m on the North Pontiac block. = $125,000.

Table of Contents

List of Tables

List of Figures

1.0 Introduction

EL 28/1998 “Mt Zeehan” is a category 1 exploration licence held by Allegiance Mining Pty Ltd, a subsidiary of Dundas Mining Pty Ltd. Lottah Mining Pty Ltd is managing and operating the project on behalf of Dundas Mining Pty Ltd.

1.1 Location and access

EL 28/1988 covers an area of 25 km2 on Tasmania’s west coast between Zeehan and Trial Harbour.

Access to the tenement is achieved from the Trial Harbour road. Access within the tenements is limited to a few tracks with helicopter support required for much of the area.

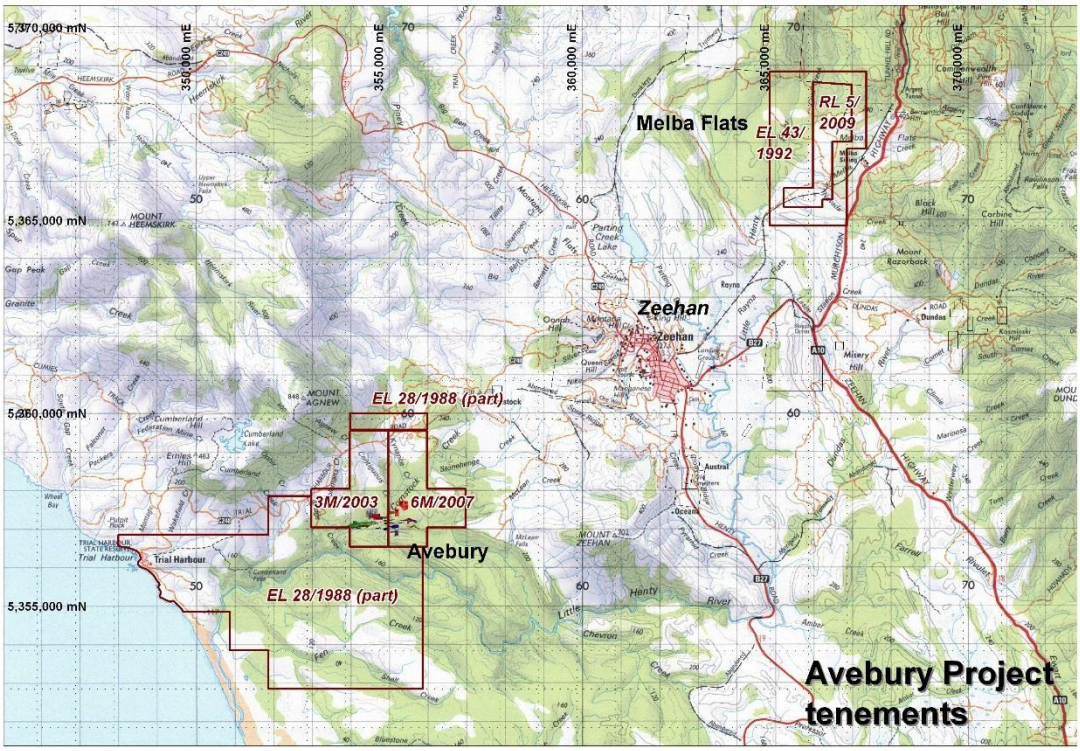


Figure 1.1: EL 28/1988 location. Coloured symbols within the ML’s are the solid wireframe shapes of the Avebury ore lenses.

1.2 Land status and usage

The tenement includes land under the following categories – Authority Land, Conservation Area, Crown Land, Informal Reserve, Private Parcel, Public Reserve, Regional Reserve, State Forest.

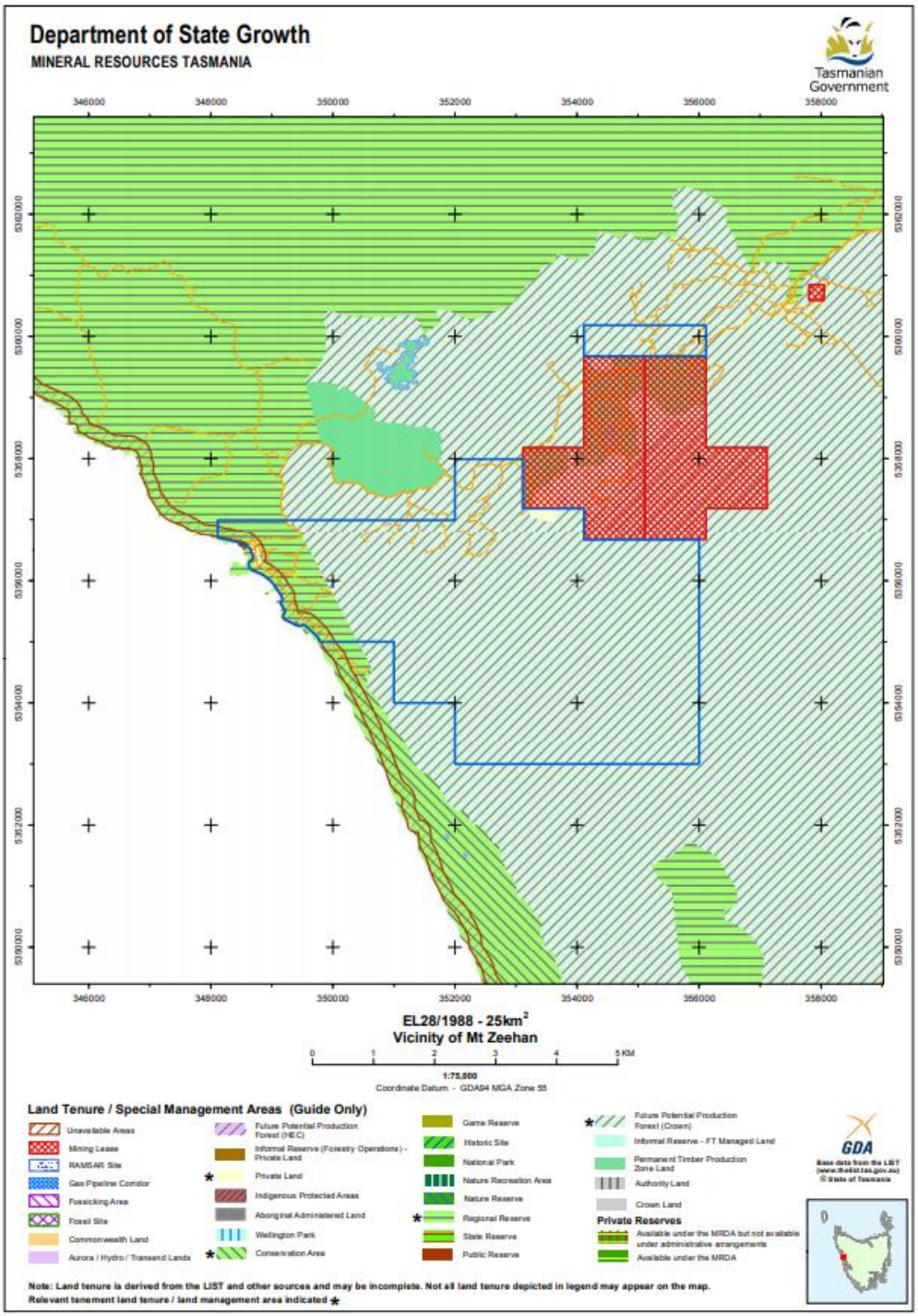


Figure 1.2: EL 28/1988 tenement land use map (courtesy of the Department of Energy and Resources, Mineral Resources Tasmania).

1.3 Tenure

EL28/1988 was initially 13 square km and covered the current Avebury and Avebury East Mining leases, with 3M/2003 excised in 2003 and 6M/2007 excised with the delineation of the East Avebury Resource in 2007. In 2013 three tenements EL 28/1988, EL22/1997 and EL37/2003 were amalgamated into a single 25 square km tenement EL 28/1998.

In mid-2017 Dundas Mining Pty Ltd acquired the Avebury Nickel Mine and associated tenements by a friendly take-over of Allegiance Mining Pty Ltd in which name the tenements remain.

The tenement is in two parts with the largest area immediately west of the mine lease to Trial Harbour and is called herein the Trial Harbour block. The smaller (just over 2skm) lies immediately north of the mine lease and is referred to herein as the North Pontiac block.

1.4 Exploration Philosophy

Dundas Mining Pty Ltd have acquired the Avebury nickel + cobalt mine with the full intent to reopen the operation in the near term.

As owners of a fully operational mill designed for nickel and cobalt ore Dundas Mining Pty Ltd's focus on exploration is primarily nickel +/- cobalt mineralisation.

Dundas Mining Pty Ltd is aware of the relationship between nickel + cobalt mineralisation and ultramafic bodies such as that found on EL 28/1988, and gabbros such as those found at the Melba Flats field, however, as a mining company Dundas Mining Pty Ltd is also interested in any commodities of commercial value which may be located on EL 28/1988.

2.0 Geology

2.1 Introduction

The licences two segments lie immediately west and north of the Avebury Mine lease and the geology can be seen to be contiguous.

Whilst Dundas is open to nickel and cobalt in other styles such as in gabbros as at Melba Flats, to date that mineralisation style is not know from the Avebury area, and is Avebury style nickel and cobalt mineralisation which forms the principal exploration model at Avebury.

Recent work has shone a light on a number of features of Avebury mineralisation and geology which is directly translatable to EL 28/1988 and is detailed in the following geology of the Avebury deposit.

2.2 Avebury Geology

The Avebury nickel + cobalt resource occurs in lenses or zones of fine (5-500µm) disseminations, with occasional coarser clots (to >10mm), and fine veinlets of nickel sulphide (pentlandite) and lesser nickel cobalt sulphide (gersdorffite) and nickel arsenides (niccolite, maucherite, millerite, mackinawite), hosted in a variably altered (both serpentine and skarn type alterations) ultramafic intrusive body. Main associated gangue minerals are pyrrhotite and magnetite. Total sulphide is usually <3%.

Ore lenses predominantly lie around the margin of the ultramafic and in 1 to 3 margin parallel “onion skin” like zones and can be up to 30m thick but generally in the range 1-10m. Ore lenses occur less commonly as sub-vertical lenses internal to the ultramafic with uncertain geological control.

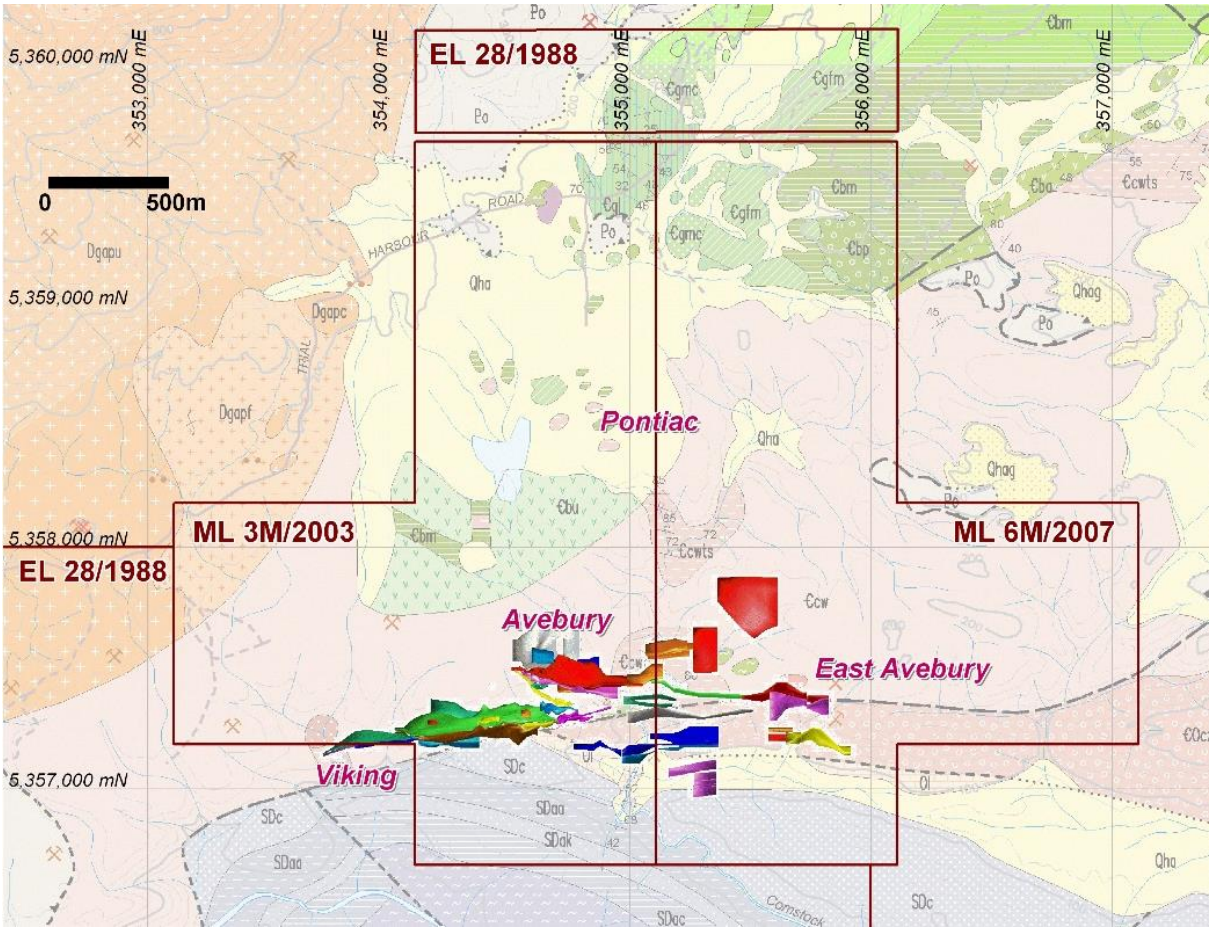


Figure 2.2: Avebury mine site geology showing currently defined lenses as coloured shapes (same colours used in subsequent figures), tenement boundaries and prospects on Mineral Resources Tasmania 1:25,000 geology.

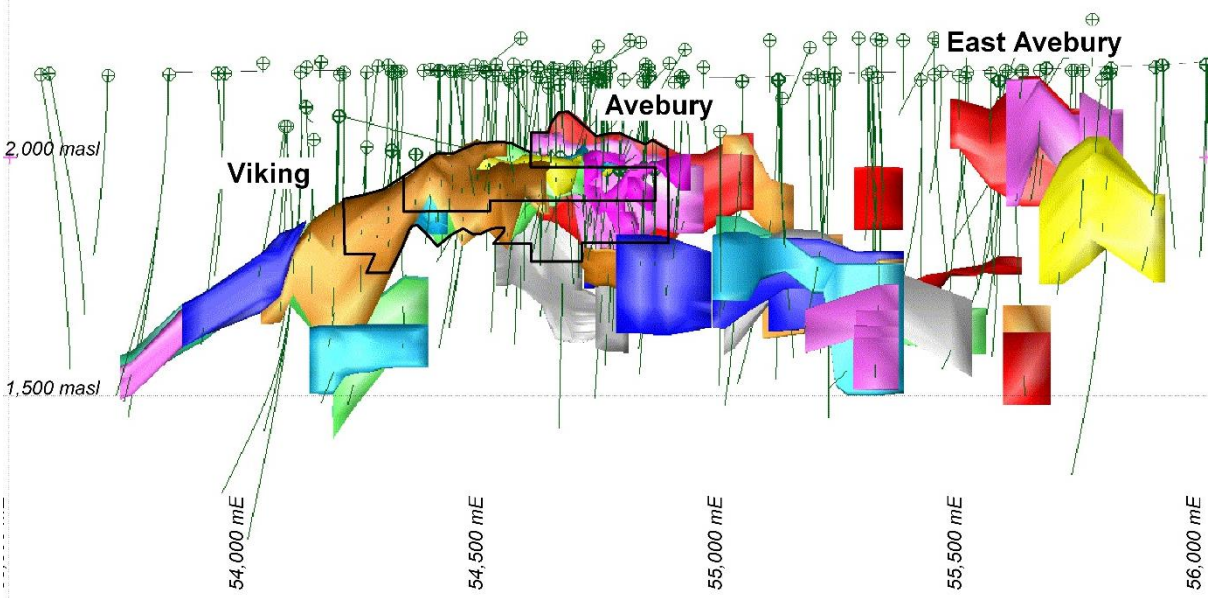


Figure 2.3: Avebury mine currently defined ore lenses as coloured shapes in a long section view, looking due north, with green drill traces and black outline around Measured Resource (central shape), Indicated Resource (surrounding shape) and Inferred Resource (remaining area).

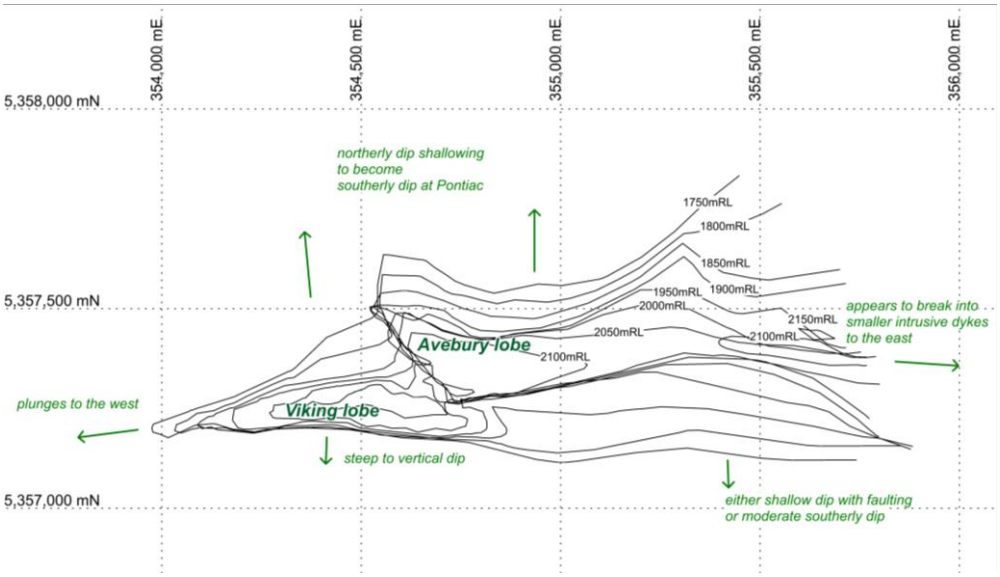


Figure 2.4: Plan view of depth contours (mine RL which equals 2000m + metres above sea-level) of the ultramafic body showing the two lobes, the southerly Viking lobe, and the northwest projecting Avebury lobe.

The ultramafic is believed to have been a cumulate of peridotite composition i.e. an olivine rich rock and probably dunite (the most olivine dominant) though pyroxenites dominated by pyroxenes are also likely.

The ultramafic intrusive as defined has a sub-vertical east-west geometry and breaches the surface in only a few locations (at its centre and at its eastern end at East Avebury). In the central part of the deposit where mining has occurred two discrete "lobes" can be recognised i.e. the Avebury lobe which projects northwesterly, and the Viking lobe which lies to the southwest and projects westerly. East Avebury lies at the eastern end of the Avebury lobe where it appears to break into smaller sills or dykes. At its western end the ultramafic thins and plunges moderately.

Overall ultramafic intrusion dimensions (and thus potential ore) are 2500m strike (east-west) x 900m wide (north-south) x 700m vertically (from surface(?)). A total tonnage of 1,000 million tonnes has been defined to date.

The ultramafic intrusive has intruded into a sequence of sediments (shales, sandstones, conglomerates) and lesser basalts. In the mine these rocks dip consistently steeply to the north though facing indicators indicate younging to the south and so the sequence is stated to be overturned (Callaghan, ?????). The sequence reappears to the north at the Pontiac prospect and appears to define an east-west overturned synform.

The sediments and basalts are generally assigned to the Crimson Creek Formation though a correlation with the Linda Group is favoured by some. The gabbros are correlated with the McIvor Hill mafic-ultramafic complex which lies to the north of the mine lease.

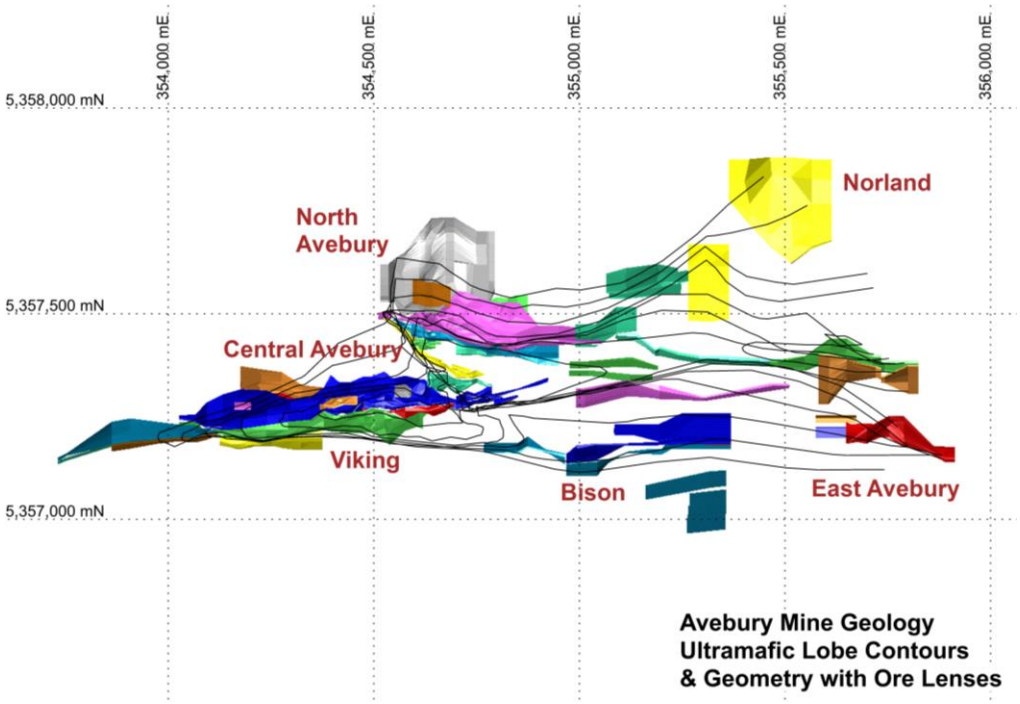


Figure 2.5: Avebury mine currently defined ore lenses as coloured shapes with respect to depth contours of the ultramafic body.

The host ultramafic intrusive is Neoproterozoic in age (640-570ma) and probably formed in oceanic crust.

Most other ultramafics in Tasmania are considered to be allochthonous and structurally emplaced, however, contacts between the Avebury ultramafic intrusive and the enclosing sediments, basalts and gabbros, whilst annealed due overprint by a younger granite (Heemskirk Granite) intrusive, are commonly conformable to bedding and/or show intrusive contacts.

It is considered that the whole block of sediments, basalts, gabbros and ultramafic is allochthonous and was structurally emplaced during a later (Middle Cambrian) tectonic event.

The Heemskirk Granite is Devonian in age (400ma) and has (1) partially metasomatised the ultramafic host rock to a skarn assemblage, particularly around the margin, and (2) variably added granophile elements such as arsenic, bismuth, lead, antimony and tin to the ore. The granite outcrops ~1km to the northwest of the Avebury mine and passes beneath the Avebury deposit at moderate depth.

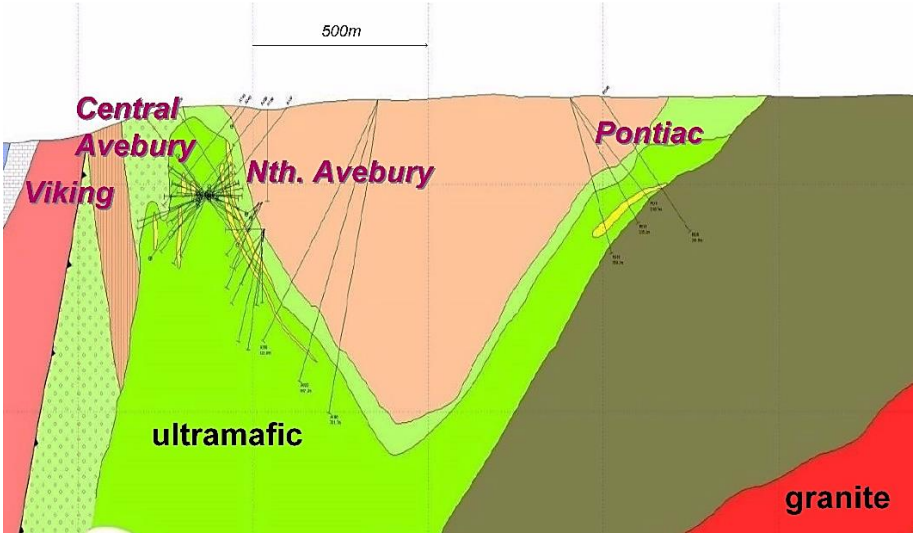


Figure 2.6: North-south cross-section through the Avebury deposit showing the position of the granite (red), host ultramafic (green) and ore lenses (yellow).

Ore and gangue minerals are;

- Nickel sulphide minerals
  - Pentlandite - (Fe,Ni)S – dominant ore mineral – contains significant cobalt levels
  - Millerite – NiS - trace amounts
- Nickel arsenide minerals
  - Nicollite – NiAs
  - Maucherite – $Ni_{3-4}As_2$
  - Gersdorffite – NiAsS – contains significant cobalt levels (some suggestion of Cobaltite CoAsS – end member of Co-Ni solid solution
- Gangue minerals
  - Pyrrhotite – FeS
  - Magnetite – Fe_3O_4
- Cobalt can occur in all of these (including in pyrrhotite & magnetite) but occurs mostly in Gersdorffite and Pentlandite

The variable skarn alteration of the serpentinised ultramafic host leads to the classification of three types of host rock;

- Unaltered serpentinite (coded in database as SERP) constitutes the host to ~65% of ore
- Partially skarn altered serpentinite (coded in database as SKSP) constitutes the host to ~33% of ore
- Completely skarn altered serpentinite (coded in database as SKRN) constitutes the host to ~2% of ore

Callaghan (2009), Senior Mine Geologist at the mine describes the distribution of mineralisation based on field experience and petrological studies as follows:

> "Pentlandite occurs as coarse disseminations and stringer veins associated with secondary magnetite. Most of the sulphides are coarse grained and re-crystallised post foliation due to the thermal and metasomatic effects of the Devonian granite intrusions. Sulphide

contents are generally low with mineralised ultramafic comprising between 0.5 to 3% sulphides although massive pentlandite does occur in some drill intersections.

Mineralisation in both serpentinised ultramafic and ultramafic skarn generally consists of pentlandite and pyrrhotite as individual grains from 5-500um and patches to >10mm.

Sulphides are frequently associated with magnetite forming crystalline intergrowths and veins within massive granular magnetite-chromite.

Occasionally nickel arsenides are associated with the pyrrhotite-pentlandite-magnetite assemblage. Niccolite, maucherite and gersdorfite form replacive intergrowths around pentlandite-pyrrhotite rims or as individual niccolite grains associated with silicates.

Although not universal, Fander (2000) notes the association of nickel arsenides and sulpharsenides with the ultramafic skarn assemblage. This association and the replacive textures evident in polished thin sections suggest the addition of arsenic during metasomatism. The majority of the Avebury resource has a low arsenic concentration of less than 100ppm." (Callaghan, 2009)

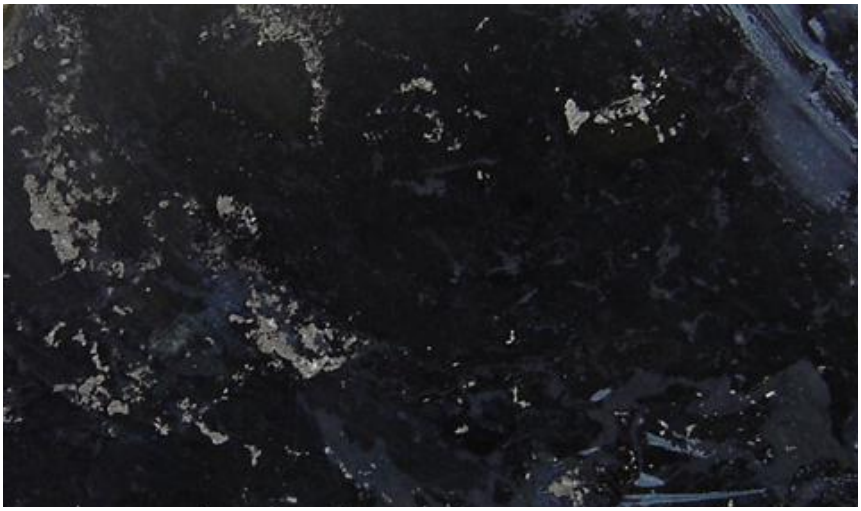


Figure 2.7: Unaltered serpentinite ore (SERP) with disseminations and clots of sulphides.

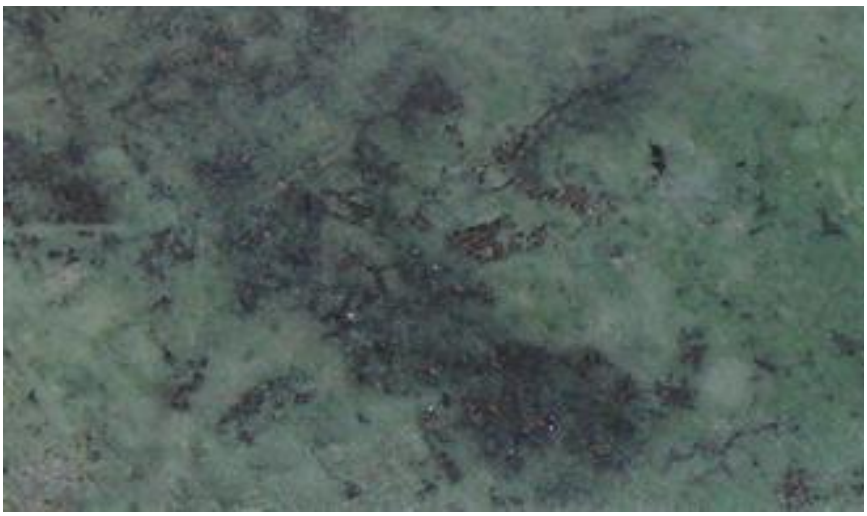


Figure 2.8: Partially skarn altered serpentinite (SKSP).

The geological history of the deposit is disputed in the academic literature with alternative interpretations remaining particularly with respect to the mode of formation and relative timing of nickel and cobalt mineralisation, and to a lesser degree, arsenic mineralisation, and early serpentinisation and later skarn alteration.

A major question initially has been to the source of the nickel, however, arsenic has been a more recent issue and also provides compelling evidence regarding the genesis of the nickel and cobalt mineralisation.

The major advantage that this report has with respect to earlier work is (1) hindsight and (2) access to a 3D database of over 130,000m of drilling which has been completed to data. Appraisal of the drilling and assays in 3D allows for the recognition of patterns in the distribution of mineralisation.

Significantly drilling has shown that the bulk of the nickel and cobalt mineralisation is distributed fairly evenly around the margin of the ultramafic host with no increase or decrease associated with distance to and from the granite.

The first order control on the distribution of nickel and cobalt mineralisation is on or near to intrusive margin.

The same extensive drilling shows that the spatial distribution of arsenic is quite markedly different to that of nickel and cobalt.

This is expressed also statistically in a chart of nickel versus arsenic grades from the drill hole database showing an overall very poor correspondence between nickel and arsenic.

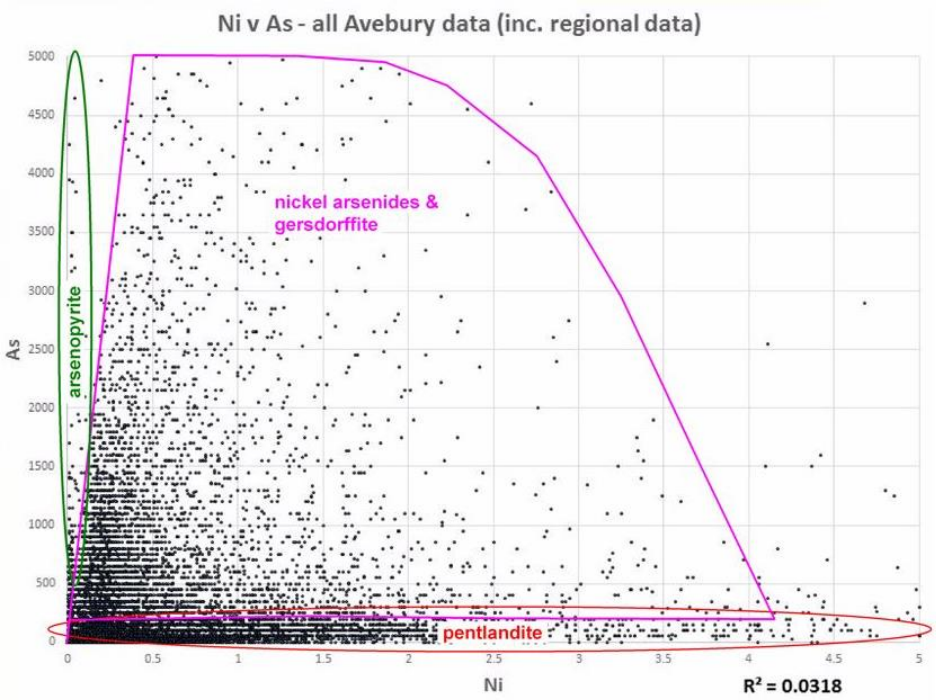


Figure 2.9: Relationship between nickel and arsenic in drill holes. Nickel with low Arsenic = pentlandite [$(Fe,Ni)_9S_8$]. Arsenic with no nickel is ***arsenopyrite and is only seen in the sandstones, shales and volcanics,*** *whilst the rest of population is Nickel Arsenides and Nickel Arsenic Sulphides where the arsenic bearing fluids from the granite have reacted with pre-existing nickel sulphides.*

The poor overall correspondence between nickel and arsenic indicates that the arsenic mineralising phase is a separate mineralising event from the nickel (and cobalt).

Petrological studies consistently show the arsenic bearing minerals commonly replacing nickel sulphide. Those occurrences of nickel arsenides on their own are interpreted as the product of complete replacement of pre-existing nickel sulphides. There is no arsenopyrite in the ultramafic.

Figure 2.10: Colour representation of a microphotograph of a thin section of Avebury ore showing a pentlandite grain (~5mm across) being replaced by nickel arsenides.

Arsenic is being drawn from solution to react with nickel sulphides, with As replacing S, wherever the granite derived arsenic bearing fluids encounter nickel sulphides.

Thus it is possible to have nickel without arsenic but it is not possible to have arsenic without nickel.

Petrology, core logging and mapping also shows arsenic minerals to be very commonly associated with skarn alteration.

Element relationships show

1. strong correlation between nickel and cobalt
2. weak correlation between each of nickel and cobalt with arsenic
3. weak correlations between each of nickel and cobalt with the granophile elements W, Bi, Sn
4. arsenic shows strong correlation with the granophile elements W, Bi, Sn.

The combination of

1. field and petrological evidence for consistent later stage replacement of pentlandite by nickel arsenides,
2. the association of these nickel arsenides with skarn alteration
3. strong correlation between arsenic and the granophile elements

all support arsenic being late stage and related to the granite intrusion.

Nickel arsenides have formed where granite derived fluids have been able to access existing nickel and cobalt sulphides. Where such fluids have not been able to penetrate there are no nickel arsenides.

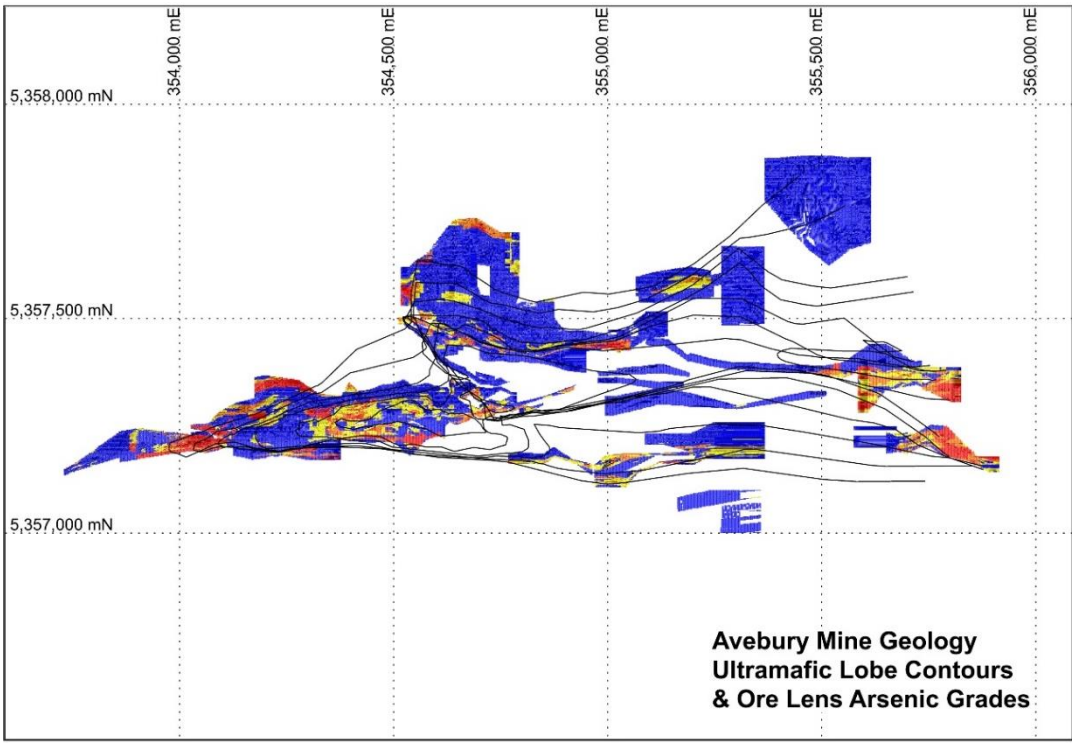
With the association between nickel arsenides and gersforffite and skarn alteration it has been previously thought that it should be possible to discriminate arsenic rich ore by its host rock type with SKRN and SKSP expected to be arsenic rich, and SERP arsenic poor.

Whilst the relationship holds true at the microscope and hand specimen scale and at a larger scale in some instances there are enough examples of poor correspondence at a larger scale making this not practical from a mining perspective.

Zones of arsenic alteration of nickel and cobalt sulphides have their own spatial distribution which may be categorised generally as

- higher
    - upper parts of each the two lobes at and near to their crests
    - southern flanks of the ultramafic
    - northwesternmost "nose" of the Avebury lobe
    - East Avebury
- generally low but can have some high zones
    - northern flanks of the ultramafic i.e. North Avebury to Norland
- low
    - Central Avebury area
    - internal lenses except near crests of lobes

This distribution is illustrated simplistically in plan view below.



2.11: Plan view of Avebury orebody coloured according to arsenic grade illustrating the distribution of arsenic.

There are competing theories as to the genesis of the nickel and cobalt in the Avebury deposit for similar reasons to the uncertainties which have arisen regarding arsenic discussed earlier.

In particular the overprint of alteration and mineralisation associated with the Middle Devonian Heemskirk Granite intrusion has introduced complexity.

Early academic work on the Avebury deposit Keays *et. al.* (2009) detailed three possible models for nickel mineralisation.

1. Magmatic origin which sees nickel and cobalt sulphides formed during crystallisation with immiscible globules of sulphide forming interstices during this process. Mt Keith in W.A. is of this type. Such deposits commonly have elevated PGE's, Cu and Au.
2. Liberated from olivine during the serpentinization process. Olivine in ophiolitic peridotites contains significant levels of Ni (and Co and S) in its lattice structure with 0.2% - 0.35% Ni typical. Serpentinisation of olivine results in the liberation of this nickel.
3. Nickel (and Copper) is remobilised from a higher grade deposit by fluids associated with the granite.

Keays *et. al.* (2009), using relationships between Ni and Pd, Ir, Cu, and Au in some selected samples to discriminate rejected (1) a magmatic origin, and (2) nickel (and cobalt) sourced from olivine during the serpentinization process and argued instead for (3) remobilisation of nickel and copper from a deeper high grade Ni-Cu source by hydrothermal fluids from the Heemskirk Granite.

However, the Avebury orebody is unusual in that it does not have significant levels of the PGE's or Cu with Keays *et. al.* (2009) data largely dealing with background levels and only Au showing an apparent correlation, at low levels and with limited data.

Mackay-Scollay (2014) in his honours study seeks to prove model (3). Regarding model (2) he states that the model that the nickel is sourced from the olivine "relies on there being depleted levels of Ni remaining in the serpentinites" and addresses it by examination of assay for samples from typical drill holes U030 and A250.

However, examination of A250 and the other holes drilled in 2010/11 by MMG which were assayed more completely for Ni and Co than the bulk of the drill hole database actually appears to support the argument for Ni and Co depletion of serpentinised peridotite and the remobilisation of this mineralisation into the ore lenses.

Appraisal of the 3D database shows a number of other areas with <0.01% nickel.

A histogram of ultramafic 1m nickel composite assays suggests three populations with a population between 0.15 and 0.35% Ni, a population with less than 0.15% Ni and a population with >0.35% Ni.

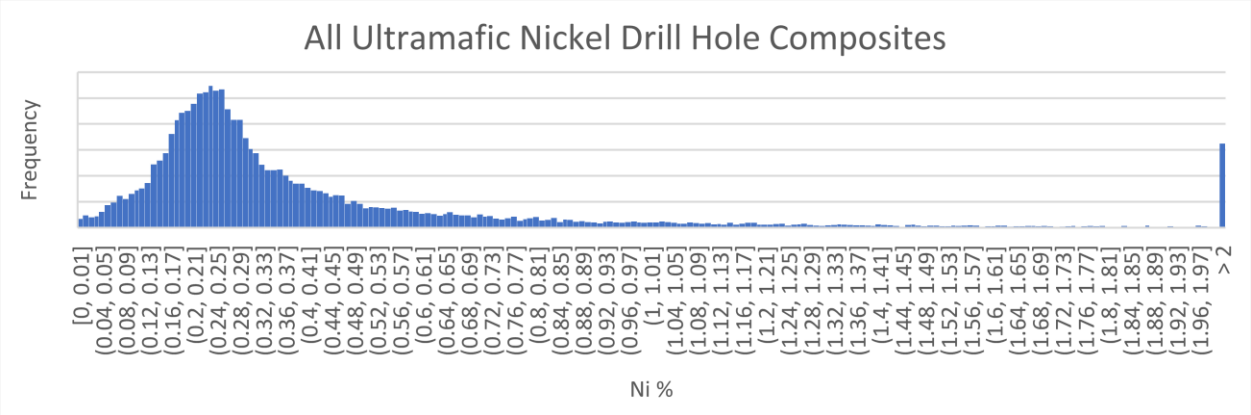


Figure 2.12: Histogram of ultramafic nickel grades (1m composites) showing three populations of nickel grade, i.e. 0 – 0.15%, 0.15 – 0.35% and +0.35%.

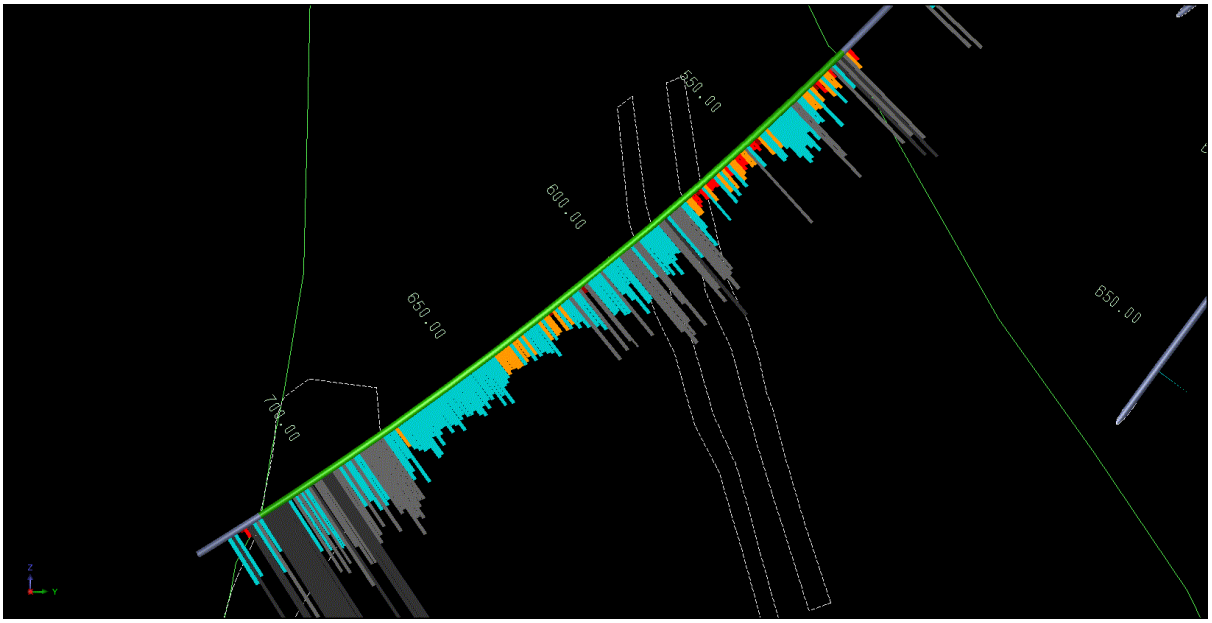


Figure 2.13: Drill hole A250 showing nickel grades indicated by both bar length and colour. Ni between 0.0 and 0.15% is red/orange/yellow. Ni between 0.15% and 0.35% is aqua. Ni greater than 0.35% is shown as grey.

The major assumption made in using low (i.e. <0.15%) Ni assays to define such Ni "depleted" zones in the serpentinite is that the ultramafic was a homogenous unit with respect to Ni content prior to serpentinization.

In fact the McIvor Hill complex, of which the Avebury ultramafic body is a part, is characterised by both olivine and pyroxene rich cumulates and thus if the ultramafic unit was originally of this origin it might well be expected to show variation in primary Ni grades with lower levels in pyroxenites.

Kamenetsky *et. al.* (2016) also argue that nickel (and cobalt) sulphide mineralisation is sourced from the olivine which was released during serpentinization before the Middle Devonian and remobilised into place by fluids derived from the Heemskirk Granite in the Middle Devonian.

However, (1) the spatial distribution of nickel and cobalt differs from the granophile elements which have to have been introduced in granite derived fluids, and (2) nickel and cobalt sulphides clearly predate the granophile elements including arsenic. Both facts indicate that there must have been two phases of mineralisation.

It is most likely that the nickel and cobalt sulphide mineralisation was liberated during serpentinization and either (1) remobilised by pressure and/or heat gradient immediately following serpentinization, (2) remobilised by pressure and/or heat gradient during structural emplacement, or (3) mobilised by the granite heat gradient which may have preceded the arsenic bearing hydrothermal fluids.

2.3 Geological History - Exploration Model

Aspects of the geological history remain unresolved. In particular the timing of serpentinization and nickel and cobalt mobilisation is uncertain other than being pre-Granite emplacement, and the depletion model is still based on a homogenous precursor which requires more work e.g. mass change alteration calculations if possible.

1. The serpentinite was formed as an ultramafic with significant olivine rich zones which has intruded into Crimson Creek sediments in-situ.
2. The Crimson Creek sediments and contained ultramafic were structurally emplaced during thrusting.

3. Either whilst (a) on the seafloor or (b) during thrusting the ultramafic became serpentinised by seawater at least in part. The serpentinization liberated nickel, cobalt and sulphur from the olivine in the ultramafic though possibly not enough for pentlandite without addition of sulphur from seawater. Pyrrhotite and primary magnetite also formed with intergrowth between magnetite and pentlandite not uncommon.

4. Nickel and cobalt sulphides probably remobilised (a) at this time of serpentinization though they may have remobilised (b) during structural emplacement (if this wasn't the timing of serpentinization) or possibly (c) as late as an early granite related phase, driven by increasing heat gradient perhaps.

   The principal driving mechanism here is uncertain but by some as yet undetermined control nickel and cobalt ends up concentrated around the carapace of the ultramafic and in parallel onion skin like zones of disseminated sulphide with occasional internal zones which appear sub-vertical (based on limited drilling).

5. The Heemskirk Granite was emplaced introducing heat and then residual fluids which caused skarn alteration of the serpentinised ultramafic to actinolite and diopside and secondary magnetite, and introduced granophile elements W, Bi, Pb, and As to the rocks wherever fluids could reach with arsenic reacting with existing nickel sulphides to form nickel arsenids and gersdorffite.

   Arsenic remained in solution in these granitic fluids within the ultramafic rock unless contacting existing nickel sulphides where the As replaces S producing nickel arsenides, i.e. the nickel sulphides act as a chemical trap.

Nickel and cobalt mineralisation is expected principally in zones all around the carapace of the now serpentinised, previously olivine rich ultramafic body.

Low levels of nickel and cobalt may imply zones of depletion with associated zones of enrichment to be found. They may also imply more pyroxene rich precursors.

Granites are not required to provide the Ni, Co or S (though there remains a possibility that incipient heat from the granite may have mobilised nickel sulphides).

Arsenic soil anomalism may imply the presence of nickel via the creation of nickel arsenides.

In-situ intrusive contacts or remobilised contacts are sought, faulted contacts with subtracted ultramafic are less desirable.

2.4 Geology of EL 28/1988

2.4.1 Introduction

EL 28/1988 is in two parts.

2.4.2 North Pontiac Block

The small block north of the Avebury ML covers a portion of the McIvor Hill mafic-ultramafic complex consisting predominantly of gabbros to the east of the tenement, Crimson Creek sediments in the centre obscured by overthrust Proterozoic with Heemskirk Granite in the west. A serpentinised ultramafic body trends just west of south across the tenement and has been intersected in drill holes P010 and P011.

Nickel grades in these two holes are all very low between 0.01 and 0.05ppm Ni suggesting depletion. This interpretation is strengthened by the moderate nickel grades typifying non-mineralised sections of the same ultramafic lens immediately south at Pontiac.

Contacts are logged as annealed fault breccias in both instances in P010. P011, drilled 25m further north than P010 made three intersections of serpentinised ultramafic, with most contacts

described as intrusive and only one faulted, though this has potentially repeated the ultramafic intersection in the hole. Rocks to the east of the ultramafic in the drill holes are gabbros whilst rocks to its west are siltstones and sandstones of the Crimson Creek Formation.

This section lies 1000m north of Pontiac where 12 intersections define a moderately south dipping ultramafic body and 600m north of P005 and P006 on the mine lease. Here the same stratigraphic relationship holds with Crimson Creek sediments overlying the ultramafic body which in turn overlies a sequence of gabbros.

The serpentinised ultramafic is not intersected in holes TLC004, TLC005 or TH6. Reid (2001) mapping shows it truncated by a north striking strike-slip fault.

There is potential for nickel and cobalt mineralisation along either margin of the intrusive with economic mineralisation intersected at Pontiac to the south. Mineralisation here is best developed along the eastern margin.

2.4.3 Trial Harbour Block

The Trial Harbour block lies immediately west of Avebury and is essentially a continuation of the geology at Avebury with a west-northwest elongate ultramafic body enclosed in Crimson Creek Sediments outcropping over a strike length of 2.7km. Magnetics suggests the body continues another 4km's beneath cover.

"The Crimson Creek Formation in the Trial Harbour area is generally similar to that at Avebury, although finer sedimentary units are more common in the former area. The greater abundance of finer units in conjunction with rare conglomerates suggest a more distal to source and deeper basinal deposition environment was present at Trial Harbour, compared with Avebury." (Reid, 2004).

"The ultramafics at Trial Harbour are similar to those at Avebury, although they are more widespread and thicker. Spinifex textures are also more common."

Along the northern edge of this part of the tenement the Crimson Creek/ultramafic block is overlain by thrust emplaced Proterozoic Oonah Formation sediments. To the north of this is the outcropping margin of the Heemskirk Granite.

This thrust fault obscures the northwesternmost part of the ultramafic body. Apart from this the margins of the body outcrops as far east as Burbank beyond which aeromagnetics suggests that it continues under cover.

The northern margin of the ultramafic is mapped as in-situ by all government and industry geologists i.e. Burton (1972) for EZ, Parkinson (1993) for CRAE and Reid (2001) for Allegiance.

It has been intersected in drill holes A223/223A and A224 in the western part of this northern margin, A168 and A221 in the central part and B007, B008, B009 and B011 at the eastern end of the margin at Burbank.

The contact is best described in A223/A223A as interfingering with intersections of variably skarned serpentinite interbedded with greywacke sediments.

In A168 there is no shearing associated with the contact. In A221 the contact is unsheared and marked by a rock described as a rhyolite?

Drill hole B007 intersected variably skarned ultramafic between 155.4m and 194.0m with the upper (northern) contact described as being faulted i.e. "137.50m to 155.40m: Broken core in fault zone with puggy fault gouge matrix".

Drill hole B008 intersected a variably skarn altered ultramafic body from 105.0m to 283.0m with a major internal fault zone from 145.0m to 243.0m. The interbedded sediments and mafic

volcanics immediately up hole are described as “quite competent to 96m, the becoming more fractured. Several strong joint sets.”

Drill hole B009 intersected a variably skarn altered ultramafic body from 144.0m to 351.7m with a major internal fault zone between 162.7m and 215.4m. The up hole (northern) contact is described as having a “low angled irregular clay filled contact with interval below” in altered Cambrian sediments immediately up hole and “144.5m – 147.0m: strongly altered and decomposed ultramafic, hematitic-talcy, brecciated and broken, possibly a sheared or faulted margin on the ultramafic” in the upper margin of the ultramafic.

Drill hole B011 intersected ultramafic from 287.3m to 508.0m with internal faulting between 354m and 362m. The upper (northern) margin of the ultramafic is logged as “287.3-288.1m: strongly altered and brecciated contact zone, possibly faulted suggesting ultramafic is intrusive; clasts of hornfelsed sediments in matrix of limonitic clays cut by thin soft white veins.”

Drill holes A165, A167 and A168 all also intersected an east-west striking serpentinised ultramafic dyke in the Crimson Creek sediments and volcaniclastics north of the ultramafic body which verges at its western end with the main ultramafic body near A168. This dykes eastern end is directed towards Avebury though drill holes on the Avebury ML show it not to do so.

Taken together the drill intersections of the northern margin of the ultramafic body and immediately overlying sediments suggest a primary intrusive(?) contact with relatively minor fault movement (i.e. not major thrust or cross-cutting strike slip faults) on the contact.

The ultramafic is prospective for Avebury style nickel and cobalt mineralisation and particularly in the 0 – 40m internal to the outer margin of the body.

The southern margin of the ultramafic is mapped as being faulted against Crimson Creek sediments in the 1:25,000 geology Trial map sheet (McClenaghan, 2004) which might be a remobilised primary contact given the stratigraphic relationship. Reid (2001), however, shows the ultramafic in faulted contact with Siluro- Devonian sediments which clearly can’t be based on drill intercepts in THP136, 163 and 164.

EZ’s drilling and geology map (Burton, 1972) indicates that the western end of the southern contact must be further south than shown on MRT’s 1:25,000 sheet.

Drill holes THP 136, THP163 and THP164 have all intersected along the western part of this southern margin whilst drill holes B007, B008 and B009 have intersected the southern margin at Burbank on its western end.

In the drill hole THP136 (drilled towards the north-northeast) the log around the contact is

- 30’ – 115’ Heavily jointed hornfels showing indistinct relict bedding. Pyrite is common along joint planes and as discrete disseminated grains.
- 115’ – 122’ Contact zone
  - 115’ – 119’ decomposed tuffaceous argillite – poor core recovery.
  - 119’ – 120’ pale yellow carbonate (?) rock with graphic haematite disseminated throughout.
  - 120’ – 122’ badly mixed up rock probably serpentinite
- 122’ – 138’ Green sheared serpentinite with shear planes and crack filled by carbonate veinlets. 129½’ – 130’ shear filled by pyrrhotite/pentlandite

In drill hole THP163 (drilled southwards) the contact is logged as

- 341’ – 375’ Very dark mottled green serpentinite with numerous fine randomn veining. Appears brecciated lleached in parts. Rare trace very fine

sulphide present althouth hard to distinguish against dark background. Section becomes whitish again towards the end with more sulphide present over last few feet.

375' – 400' Massive black very fine grained, siliceous and hard hornfels with minor amounts of sulphide (pyrite?) mainly present as fine smears along numerous joints. Botryoidal texture in pyrite present. Some blebs up to ½" long of pyrite in latter part of section"

In drill hole THP164 (drilled southwards) the contact is logged as

150' – 185' Serpentinite.

Dark brown grey, very porous (drinks up water), light in weight. Patches of pseudo breccia with subrounded serpentinite blocks in a fine matrix of white carbonate. From 157' to 185' distinct foliation in the core. This consists of aligned flattened, altered mafics and a fibre like sericite? Alteration at 50° to core axis.

185' – 209' Serpentinite

Brown grey, very porous, heavily leached, pitted and vuggy. Some specks of haematite.

209' – 214' Hornfels.

Blocks and chips recovered. Probably originally siltstone and sandstone now approaching quartzite in texture.

Drill hole B007 is logged as having a conformable contact with no shearing reported and the unit immediately south of the ultramafic is logged as a breccia unit with clasts of mafic volcanics as well as ultramafics.

In B008 the down hole (southern) contact between the ultramafic and underlying sediments is described as broken. The underlying sediments contain soft bands of ultramafic. Silicified sediments below the contact are described as being the same as a unit of silicified sediment within the ultramafic.

In B009 the down hole (southern) contact is described as "broken with unit below broken and marked by quartz-carbonate vein".

Taken together the drill intersections of the southern margin of the ultramafic body and immediately underlying sediments suggest a primary intrusive(?) contact with only minor fault movement on the contact. Again the rocks are prospective for Avebury style mineralisation, and particularly for the 0 – 40m or so internal to the outer contact of the ultramafic

The major internal fault zone is consistent with the major structures associated with the Avebury ultramafic body which are internal and strike westerly and north-northwesterly.

3.0 Review of Previous Work

Adams and MacDonald (2018) contained an exceptional record of previous exploration and the reader is referred to this report.

Exploration and mining activities within the current tenement (EL28/1988) have been extensive and diverse, with activities dating back to the mid 1870's and encompassing numerous commodities including tin, lead-zinc-silver and nickel. As such, reviewing the history of the area is a complex task. To maximise clarity, chronological tables of activity history have been created. Table 3.1 below comprises a general summary of activity, however a more extensive tabular summary (including references) is included as Appendix 1 and previous tenement location diagrams are included as Appendix 2 in Adams and MacDonald (2019).

Mount Heemskirk is something of a centrepiece for exploration, prospecting and mining in the area and following the discovery of alluvial tin in its shadow in 1876, the 'Heemskirk tin boom' spearheads activity until its collapse in 1884. Prospecting and small mining operations for lead-zinc-silver follow from 1890, and the first nickel mine in the area – Nickel Reward – reportedly opening soon after in 1900. Tin investigations tentatively continue with Loftus-Hill carrying out an economic evaluation of the area in 1920. Exploration, prospecting and mining for these commodities sporadically continue until the late 1950's when larger companies wade into the fray and apply a broader approach that the progression of technology and a relatively larger budget allows.

Regional geophysical surveys and mapping by Rio Tinto, CRA, EZ and the Mines Department provide the basis for broader geological understanding of the area and localised geochemical surveys and drilling follow. However, these programmes generally tended to focus on lead, zinc, silver, tin and copper in areas previously worked, often omitting nickel.

The 1970's herald a concerted and expansive effort in the Mount Heemskirk and Little Henty River areas by numerous companies that continues for over two decades. Difficult terrain prevent these efforts from being comprehensive, however substantial magnetics, IP, gravity, drainage, soil, auger and rock chip geochemistry, drilling and mapping coverage was achieved. Outside of the outcropping Trial Harbour Ultramafic, nickel was still generally not targeted.

EZ carried out gridding and soil sampling in 1970 – 1972 (Burton, 1972) and drilled short drill holes THP136 and THP163 to THP172 into and around the southern margin of the ultramafic body.

Drill holes TH3 was drilled by Renison Goldfields in 1979 at West Avebury without intersecting ultramafic rocks.

In the early 1990's CRAE gridded and surveyed the area drilling short holes ZT01 to ZT09.

In 1997 Allegiance Metals in joint venture with CRA/Rio Tinto commenced a short program of diamond drilling targeting a strong magnetic anomaly, discovering the Avebury nickel sulphide deposit and definitively adding nickel prospectivity to the broader area. This renewed exploration efforts in the area considerably and in the subsequent decade, Avebury was developed into a working nickel mine in the mid 2000's and a number of other areas prospective for nickel were targeted including Trial Harbour, Fen Creek, Area D/West Avebury, Burbank and Pontiac.

Allegiance subsequently drilled holes A154 (West Avebury – no ultramafic), A168, A221, A223/223A and A224 into the northern margin of the ultramafic, A165 and A167 which intersected an ultramafic dyke trending towards Avebury from Trial Harbour, and holes B001 to B011 at Burbank.

The plummet of nickel prices during the Global Financial Crisis of 2008/2009 resulted in the closure of Avebury mine and the associated halt to all exploration by Allegiance/MMG.

MMG drilled TRL001 in 2011 at the northwestern corner of the Trial Harbour ultramafic intersecting dykes in Crimson Creek siltstones. MMG also drilled FC001 at Fen Creek around the same time targeting the Trial Harbour ultramafic body at depth projected east-southeast and defined by the magnetic high yet intersected only Gordon Limestone and Owen Conglomerate.

Table 3.1 Summary of Tenement Activity History

Year	Activity	Tenement	Company
1876	Discovery		
1879	Mining		WCMC
1884	Market Collapse		
1900	Mining		
1920	Evaluation		Government
	Drilling		
1930	Drilling		Mines Dep
1938	Mine Closure		
1946	Exploration		NBH/BHS
	Geophysics		ZEx
	Drilling		
1947	Mining Report		Government
1954	Mine Opening		
1957	Geophysics		Rio & EZ
	Evaluation	SPL302	Rio
1958	Mapping		
	Geophysics	SPL302	CRA
1960	Mine Closure		
1962	Mapping		Mines Dep
1965	Geochemistry	SPL1	EZ
	Drilling		
1966	Geochemistry		Placer
	Geophysics		
1968	EL7/1968 Granted	EL7/1968	Texins
	Geochemistry		
1969	Drilling		Geophoto
	Evaluation	EL7/1968	
	Geochemistry	SPL22	EZ
	Geophysics		
		EL7/1968	Texins
	Mapping	SPL22	EZ
	Research		
1970	Geophysics		Tenneco
	EL Relinquished	SPL87	EZ
	Geochemistry	EL7/1968	Texins
	Drilling		
		SPL22	EZ
	Evaluation	EL7/1968	
1971	Drilling		Tenneco
		SPL22	EZ
	Dewatering		Tenneco
	Mapping		
		EL7/1968	Texins
	Geochemistry		Tenneco
		EL7/1968	Texins
		SPL95	

	EL Modification	EL7/1968	
	Petrology	SPL95	
	Geophysics		
		EL7/1968	
	SPL Granted	SPL95	
	Gridding	EL7/1968	
1972	EL Modification		
	Geophysics		
	Geochemistry		
	Relinquishment	SPL22	EZ
1973	Geophysics	EL7/1968	Texins/APM
	Gridding		
	Mapping		
	Joint Venture		Texins
	EL Modification		
1974	Geochemistry	SPL129, EL11/1976	MLMRC, Renison, Gold Fields
	Geophysics		
	Mapping		
	Evaluation		
	Petrology		
1975	Gridding	SPL129	Renison
	Mapping		
	Geochemistry		
	Geophysics		
	Drilling		
1976	Drilling		
	Geophysics		
	Geochemistry		
	Evaluation	EL11/1976	
1977	Gridding		
	Geophysics		
	Drilling		
	Geochemistry		
	Mapping		
1978	Research		
	Geophysics		
		SPL129	
	Geochemistry		
	Mapping		
	EL Granted	EL4/1978	Amoco
	Geochemistry		
	Geophysics		
1979	Gridding	SPL129	Renison
	Geophysics		
	Drilling		
		EL11/1976	
	Geochemistry	SPL129	
	Mapping		
	Gridding	EL4/1978	Amoco

	Geochemistry		
	Geophysics		
	Drilling		
1980	Geophysics	SPL129	Renison
	Drilling		
	Geochemistry	SPL129, EL11/1976	
	Gridding	EL11/1976	
	Drilling		
	Mapping		
	Geophysics		
	Gridding	EL4/1978	Amoco
	Geochemistry		
	Drilling		
	Trenching		
	Geophysics		
	Evaluation		
1981	Evaluation	SPL129, EL11/1976	Renison
	Mapping		
	Geophysics		
	Geochemistry		
	Drilling		
	Geochemistry	EL4/1978	Amoco
	Geophysics		
	Diamond Drilling		
1982	Geophysics	SPL129, EL11/1976	Renison, Mt Lyell, Gold Fields
	Geochemistry		
	Drilling		
	Gridding	EL4/1978	Amoco
	Geophysics		
	Geochemistry		
	Drilling		
	Costeans		
1983	Aerial Photography	EL5/1983	Gold Fields
	Drilling	EL11/1976	Renison, Mt Lyell, Gold Fields
	Petrology		
	Geochemistry		
	Geophysics		
	Joint Venture	EL4/1978	Amoco/EZ
	Mapping		
	Evaluation		
	Geochemistry		
	Geophysics		
	Drilling		
	Petrology		
	Costeans		
	Metallurgy		
1984	EL Modification	SPL129, EL11/1976	Gold Fields
	EL Modification	EL11/1976	Renison, Mt Lyell, Gold Fields
	Gridding		
	Geophysics		
	Geochemistry		
	Drilling		
	EL Modification		
	Costeans	EL4/1978	Amoco/EZ
	Geophysics		

	Geochemistry		
	Drilling		
	EL Modification		
1985	Gridding		Amoco/Cyprus/EZ
	Mapping		
	Geochemistry		
	Geophysics		
	Drilling		
	Costeans		
	Petrology		
	Lead Isotopes		
	Company Changes		
	Submission	EL11/1976	Gold Fields, Mt Lyell, Renison
	Geophysics		
1986	Evaluation	EL4/1978	Amoco/ Cyprus/EZ
1987	Geochemistry	EL19/1986	RW Creasy
	Drilling	EL4/1978	Cyprus/EZ
	Evaluation		
1988	EL Modification		
	Drilling		
	Geochemistry	EL50/1986	NMS (Geopeko?)
	EL Granted	EL28/1988	Duke Of Avram
1989	EL Modification		Major Mining
	Geophysics		
1991	Joint Venture		CRAE/Major Mining
	Evaluation		
1992	Geophysics		
	Drilling		
	Geochemistry		
1993	Petrology		
	Drilling		
	Geochemistry		
	EL Modification		
1994	Mapping		MRT
	Company Changes		Major Mining/ Allegiance
	Geochemistry	EL28/1988	CRA/Allegiance
	Geophysics		
	Drilling		
	Submission	EL4/1978	Amoco
1995	Air core Drilling	EL28/1988	CRA/ Allegiance
1995	Evaluation	EL8/1994 (EL14/1994, EL15/1994)	Allegiance
	Geochemistry	EL14/1994	
1996	Relinquishment	EL15/1994	
	EL Modification	EL14/1994	
	Research	EL28/1988	CRA/Allegiance
	Geophysics		
1997	Drilling		
	Company Changes		CRA/Rio
	Petrology	EL28/1988	Allegiance/Rio
	EL Modification		
	Company Changes		
1998	Evaluation	EL28/1988, EL22/1997	Allegiance

	Geophysics		
	EL Extension	EL28/1988	
	Access		
	Geophysics		
	Petrology		
	Drilling		
1999	Geochemistry		
	Geophysics		
	Drilling		
	Surveying		
	Petrology		
2000	Mapping	EL28/1988, EL22/1997	
	Geochemistry		
	Petrology	EL28/1988	
	Evaluation	EL28/1988, EL22/1997, EL43/1992	
2001	Evaluation	EL28/1988	
	Geochemistry		
	Evaluation		
	Drilling		
2002	Geophysics		MRT
	Evaluation	EL28/1988	Allegiance
	Petrology		
	Drilling		
	EL Modification		
2003		3M/2003	
	Evaluation		
	Application		
	Drilling		
	Submission	SPL129, EL11/1976	Placer Dome
2004	Drilling	EL28/1997, EL22/1997	Allegiance
	Geophysics		
2005	Evaluation	3M/2003	
	Application		
	Petrology	EL22/1997	
	Drilling	EL22/1997, 3M/2003	
2006	Drilling	EL28/1988, EL22/1997	
	Drilling	EL28/1988	
2007	Drilling	EL22/1997 (EL28/1988, 3M/2003)	
	Evaluation	EL28/1988	
	EL Modification	6M/2007, EL28/1988	
2008	Company Changes		Allegiance/Zinifex
	Company Changes		Zinifex/Oxiana/OZ
	EL Modification	6M/2007, EL28/1988	OZ
	Drilling	EL28/1988	
	Petrology		
2009	Mine Closure	3M/2003	
	Track cutting	EL37/2003	
	Geochemistry		
	Mapping		
	Company Changes		OZ/MMG
2010	Drilling	EL28/1988	MMG
	Survey		
2011	Geophysics	EL28/1988, EL22/1997	

		EL28/1988	
	Drilling		
	Survey		
	Evaluation		
2012	Geophysics	EL37/2003, EL22/1997, EL28/1988	
2013	EL Modification	EL28/1988	
2017	Company Changes	EL28/1988, 3M/2003, 6M/2007	Lottah/MMG

In the 2017/2018 year under the new ownership work consisted of a thorough review of previous exploration and mining activity with over 170 reports downloaded from MRT's website, appraised and summarised.

A summary of exploration over the tenement is given in table 3.1 with a more detailed version in appendix 1 in Adams and MacDonald (2018). The full list of reports downloaded and appraised is given in the references in Adams and MacDonald (2018).

4.0 Exploration completed during the reporting period December 2018 to December 2019

Work in the 2018/2019 reporting year has been impeded by a lack of available funds.

Dundas Mining are attempting to reopen the mine. A heads of agreement with an offtaker/financier was broken at the last minute in late 2018 meaning that expected funds for ongoing care and maintenance, feasibility studies, reopening and some exploration drilling were withdrawn with care and maintenance of the mine and feasibility studies towards its reopening prioritised.

For this reason focus has necessarily been placed on advancing the feasibility study and maintaining the mine lease.

Regardless work has been carried out in conjunction with the feasibility study which should improve the chances of discovery.

The main effort here has been expended in understanding the Avebury geology and in particular the spatial controls and genesis of nickel, cobalt and arsenic mineralisation. That work has resulted in a much clearer exploration model as well as informing mine production and is summarised in section 2.2 and 2.3.

In addition some work specific to the tenement was also undertaken with creation of a more complete drill hole database, digitising of soils and rock geochemistry and 3D modelling of the ultramafic body.

That work is best expressed in the figures for the Trial Harbour block which follow.

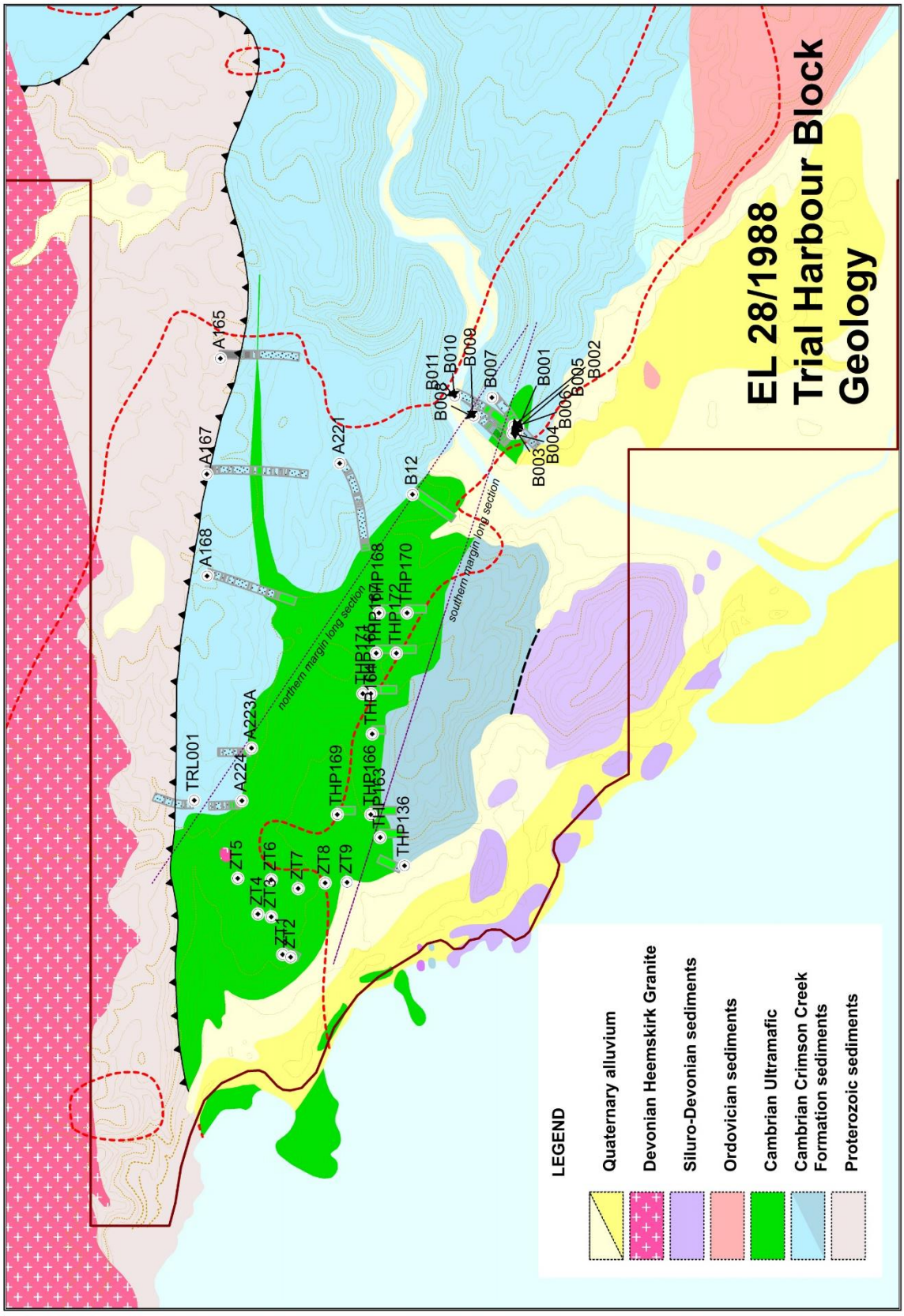


Figure 4.1: EL 28/1988 Trial Harbour block showing geology.

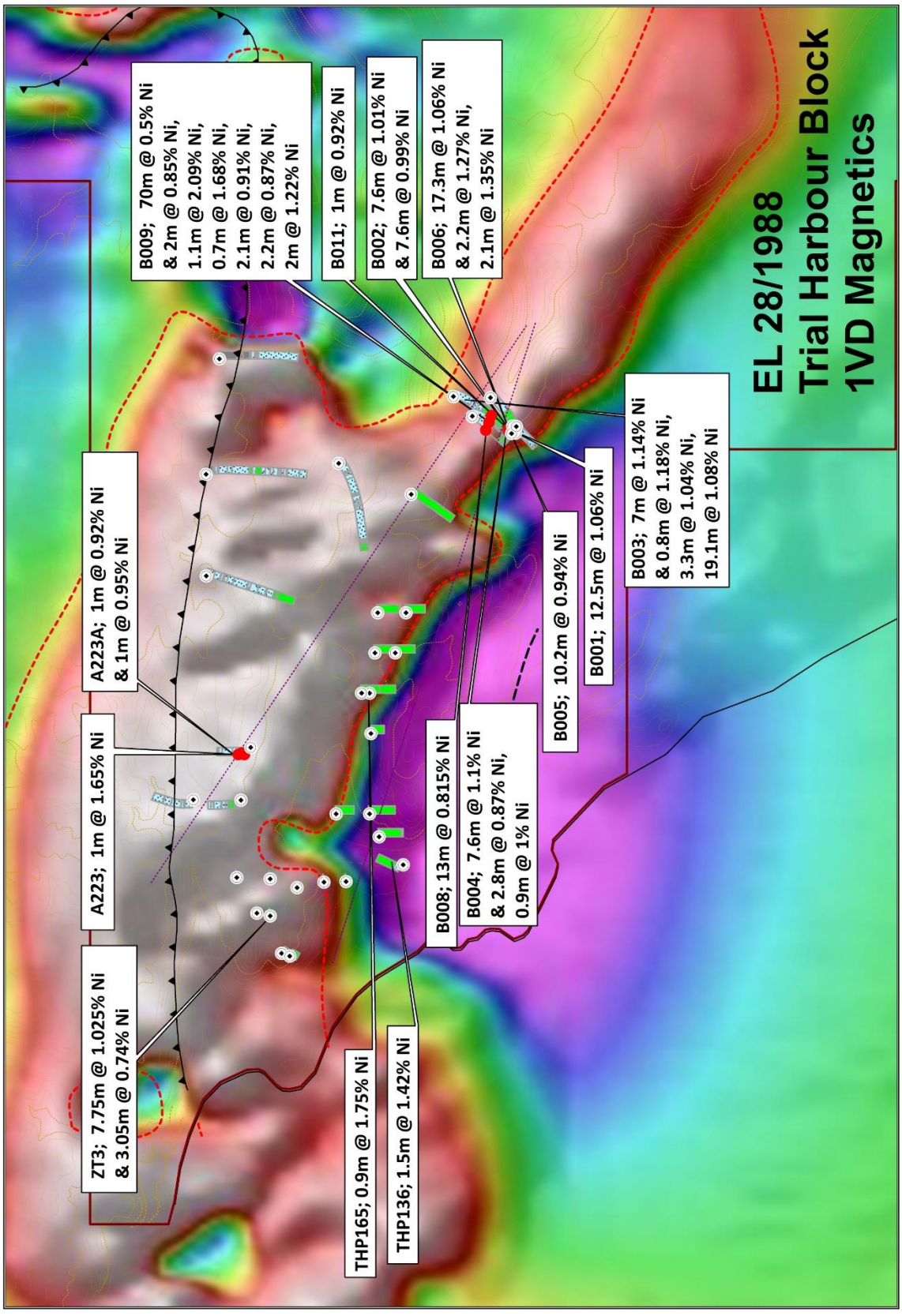


Figure 4.2: EL 28/1988 Trial Harbour block showing better intersections and 1VD magnetics.

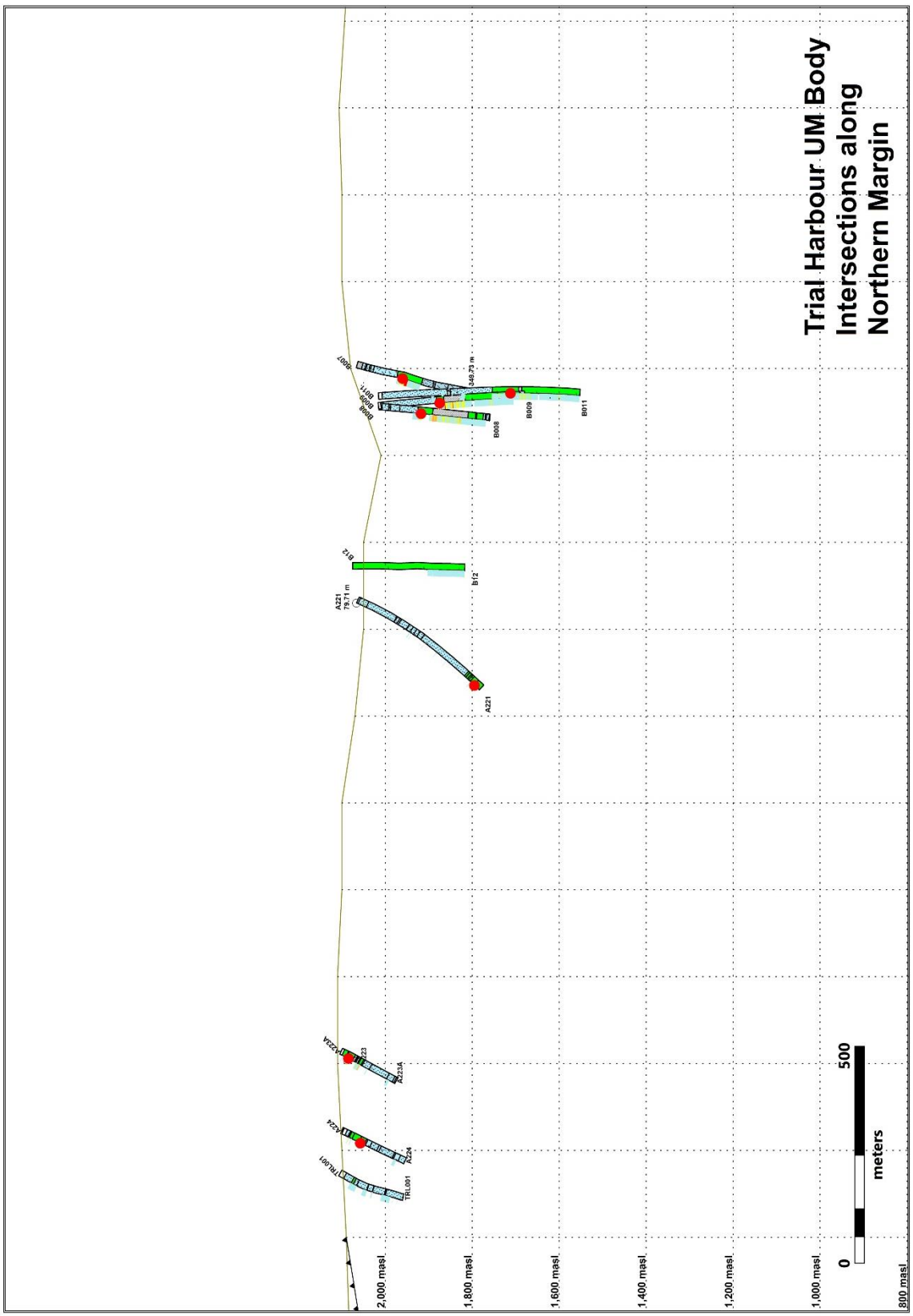


Figure 4.3: Long section along northern margin of ultramafic showing drill hole pierce points of this margin. Geology legend in figure 4.1.

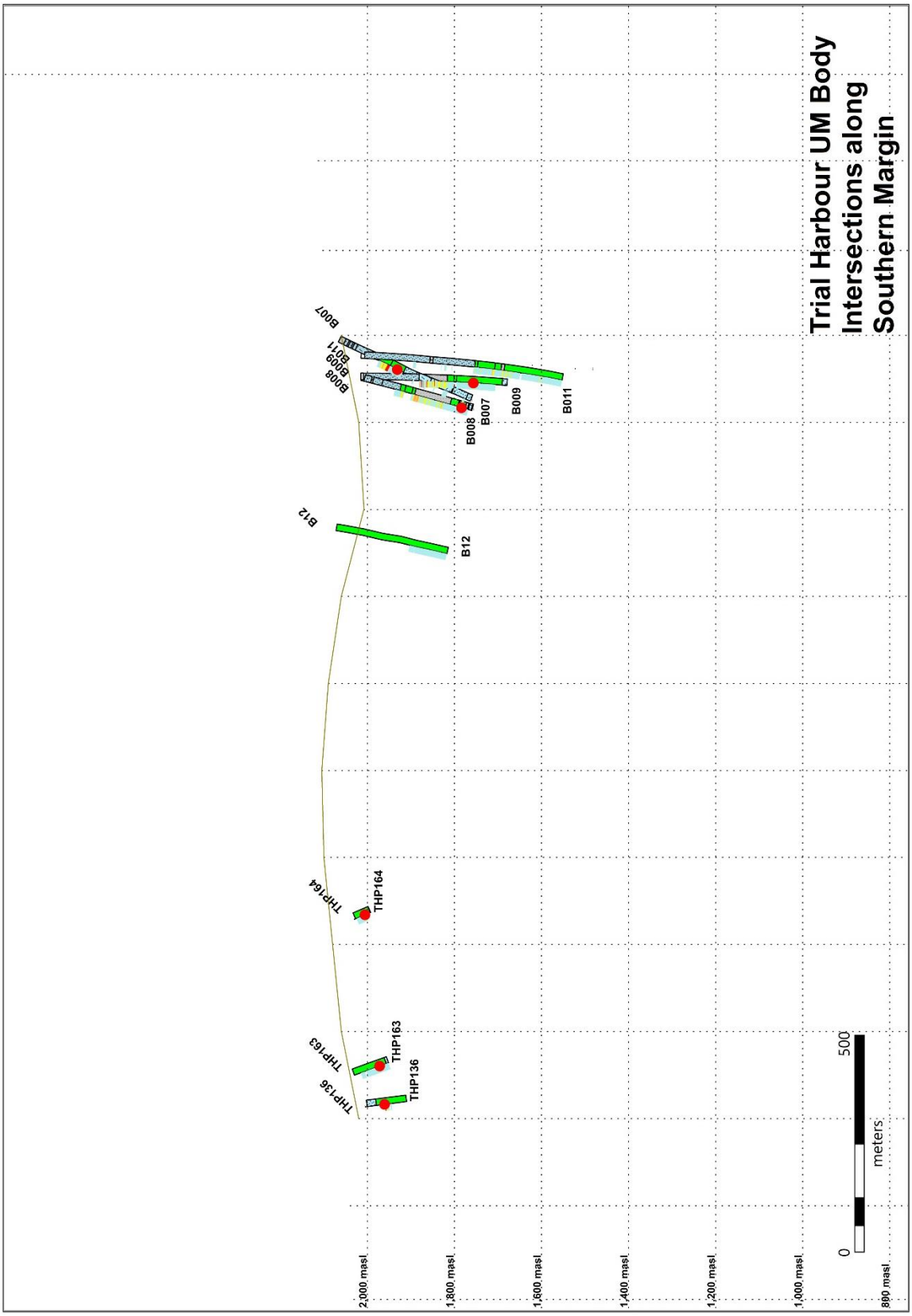


Figure 4.4: Long section along southern margin of ultramafic showing drill hole pierce points of this margin. Geology legend in figure 4.1.

5.0 Discussion

Trial Harbour

The Trial Harbour ultramafic body occurs over a west-northwest oriented strike of 2.5km's with a further 4km's beneath cover indicated by aeromagnetics.

Drilling indicates steep sides to the ultramafic with contacts suggestive more of primary contacts with variable movement as opposed to major faulting.

The ultramafic has demonstrated potential for Avebury style nickel and cobalt mineralisation, particularly along both margins of the body for a distance of up to ~40m from its outer contact.

Consideration should be given to carrying out both an IP survey and a drone magnetics survey to focus drilling.

Comalco used gradient array IP along the western end of the southern part of the body with some success (Burton, 1972) and a higher resolution magnetics survey will allow placement of the ultramafic margin more precise.

Ultimately pattern drilling will be required on 400/200/100/50/25m spacings and it is possible to recommend short to moderate drill holes on either side of Burbank or on the section between A223/A223A and A221.

North Pontiac

The body of serpentinised ultramafic in the North Pontiac block has only been drill tested in 500m of strike on one section, albeit in the middle. Very low nickel grades in holes P010 and P011 here may represent a depletion zone with nickel mobilised elsewhere. Further south at Pontiac rocks in the same spatial position, with respect to the ultramafic's contacts, have more moderate background levels on nickel supporting this interpretation.

If possible an east-west oriented IP survey should be run over this area before drilling, however, it is also possible to recommend one or two drill holes to test this North Pontiac serpentinite on a drill section ~200m to the south of the current drill section, i.e. midway between current drill sections and just inside EL 28/1988, in order to give some focus to this block bearing in mind the age of the tenement.

6.0 Proposed Works Programme 2018/19 year

EL 28/1988 is highly significant to the long-term future of the Avebury operation and will be a focus of exploration in the coming year. It is expected that exploration will ramp up considerably once the mine is up and running and a cash flow is generated.

In the Trial Harbour block both margins of the west-northwest striking serpentinised ultramafic body have proven prospectivity for Avebury style mineralisation.

In the North Pontiac both margins of the north-northeast striking serpentinised ultramafic body have proven prospectivity for Avebury style nickel mineralisation.

IP and drone magnetics surveys are warranted over the ultramafic bodies in both blocks and this work will allow prioritisation of areas for drilling.

However, drilling can be justified without this surveying if early drilling is desired. In such a case a drill hole ~200m south of the only drill section in the North Pontiac block may be a cost-effective option. Such a hole has limied potential but will be needed to sterilise this part of the tenement should relinquishment be required..

If nickel cobalt intersections are desired drilling will focus on the Burbank area and in particular step out holes to the east.

Ideally work in the coming year would involve the IP survey and a drone magnetics survey in the first year with +400m's of drilling in year 2.

If drilling is a requisite for an extension of term then 300m's of diamond drilling is proposed for the Trial Harbour block and 100m's for the North Pontiac block for the first year with a similar quantum of drilling in the second year.

7.0 Expenditure

Exploration expenditure for EL 28/1988 for the period December 2018 to December 2019 was $15,200 bringing the total to date to $9,470,556.

	$
Geology	12,500
Geochemistry	0
Geophysics	0
Remote Sensing	0
Drilling	0
Gridding	0
Land Access	0
Rehabilitation	0
Feasibility Studies	0
Other	2,200
Administration	500
Total	15,200

8.0 Environmental

There has been no exploration activity on the tenement and therefore no environmental disturbance. There are believed to be no outstanding liability issues.

9.0 References

Anon. 1958. Exploration Notes and Proposals for Future Work, West Coast, Tasmania. Rio Tinto Australian Exploration Pty ltd. [TCR 58_0256]

Blissett A.H. 1962. *Zeehan*. Geological Survey Explanatory Report One Mile Geological Map Series. Tasmania Department of Mines.

Bogie I. 2005. The Petrology of 8 Samples from the Burbank Prospect, Tasmania for Allegiance Metals NL. Sinclair Knight Merz (SKM) Consulting. Unpublished Report.

Bottril R., Brown T. 1997. The Mineralogy and Prospectivity of the Ultramafic Complexes of Tasmania (DRAFT). Unpublished Draft. Mineral Resources Tasmania.

Bottril R.S. 2001. A mineralogical field guide for a Western Tasmania minerals and museums tour. *Tasmanian Geological Survey Record* 2001/08. Mineral Resources Tasmania.

Brathwaite R.L. 1970. Second Report on Investigations at Trial Harbour, Special Prospectors Licence No 22. Electrolytic Zinc Company of Australasia Ltd. [TCR 70_0681]

Brooks S., Veska L. 2009. Exploration Licence 20/2002 Annual Report December 2008 - December 2009. Creat Resource Holdings. [TCR 10_6000]

Brown A.V. 1986. Ultramafic-mafic complexes of western Tasmania and Platinum Group Element (PGE) minerals. [UR1986_28]

Brown A.V. 1989. Orthopyroxene-rich ultramafic-mafic rocks from western Tasmania and their PGE contents. *Tasmanian Department of Mines - Report* 1989/40.

Brown A.V. 1991. Revocation report on the Melba Flats Exempt Area SR 1987, No 216 of 11km2. *Division of Mines and Mineral Resources Report* 1991/10. Tasmania Department of Resources and Energy.

Brown A.V. 1992. Platinum Group Elements and their host rocks in Tasmania: A summary review. Geological Survey Bulletin No 70. Department of Mines, Tasmania.

Brown A.V. 1998. Platinum Group Elements and their host rocks in Tasmania: A summary review. *Tasmanian Geological Survey Record* 1998/04.

Burton C.C.J. 1972. Third Report on Investigations at Trial Harbour, Tasmania, Special Prospectors Licence No 22. Electrolytic Zinc Company of Australasia Ltd. [TCR 72_0870]

Callaghan T. 2003. Avebury Mine ML3/2003 Proposed Mill and Tailings Dam Site Sterilisation Program. Allegiance Metals Pty Ltd. [TCR 04_5087]

Callaghan T. 2007. EL22/1997 Trial harbour Annual Report to July 2007. Allegiance Metals Pty Ltd. [TCR 07_5504]

Callaghan T. 2007. East-Avebury and Saxon Nickel Sulphide Deposit Mineral Resource Report. Allegiance Metals Pty Ltd. [TCR 07_5565]

Callaghan T. 2007. EL28/1988 Zeehan Annual Report to December 2007. Allegiance Metals Pty Ltd. [TCR 07_5565]

Callaghan T. 2008. Special Exploration Licence EL42/2001 Western Tasmania Annual Report to October 2008. OZ Minerals. [TCR 08_]

Callaghan T. 2008. EL22/1997 Trial Harbour Annual Report to July 2008. Allegiance Metals Pty Ltd. [TCR 08_5679]

Callaghan T. 2008. EL28/1988 Annual Report to December 2008. OZ Minerals. [TCR 08_5757]

Callaghan T. 2009. EL37/2003 Fen Creek Annual Report to February 2009. OZ Minerals Pty Ltd. [TCR 09_5781]

Callaghan T. 2010. EL37/2003 Fen Creek Annual Report to February 2010. Minerals and Metals Group. [TCR 10_]

Callaghan T. 2011. Field Investigation, Unexplained VTEM Anomalies, Avebury District, 2011 Prepared for MMG Pty Ltd. Resource and Exploration Geology. [TCR 11_6340B]

Campana B. 1957. Discovery of an Ancient Mineralised Rift-Valley in West Tasmania. Rio Tinto Australian Exploration Pty Ltd. [TCR 57_0181]

Campana B., King D. 1960. Cambro-Ordovician Sedimentation & Tectonism in West Tasmania: Age & Control of Mineralization & Results of the Exploration. Rio Tinto Australian Exploration Pty Ltd. [TCR 60_0305]

Corbett K.D., Quilty P.G. & Calver C.R. eds. 2014. *Geological Evolution of Tasmania*. *Geological Society of Australia (Tasmania Division), Special Publication* 24.

Crawford A. 2006. Avebury Petrology Report. Unpublished Report. Allegiance Metals.

Cromer W.C. 1988. EL28/87 Granville Harbour, Tasmania Annual Report Year 1 (12.12.87 - 12.12.88) for New Holland Mining NL. William C. Cromer Pty Ltd. [TCR 88_2878]

Dauth C. 2000. Interpretation of Down-Hole Electromagnetic Data Acquired on CP348, June 2000, Dundas EL21/96. Pasminco Exploration. [TCR 00_]

Dauth C. 2000. Interpretation of Helicopter-Borne Electromagnetic Survey Data Acquired Over the Dundas Region Western Tasmania, May 1999, EL21/96. Pasminco Exploration. [TCR 00_]

Davison G. 2003. Avebury Nickel Project Stage 1 - Viking Decline Development Business Plan. BFP Consultants Pty Ltd. [TCR 03_4979A]

Davison G. 2003. Indicative Feasibility Study, Avebury Mining and Processing Options. BFP Consultants Pty Ltd. [TCR 03_4979C]

Denwer K. 2012. Zeehan EL28/1988 Annual Report for the Period Ending December 2012. MMG. [TCR 12_]

Denwer K.P. 2013. Zeehan EL 28/1988 Annual Report for the Period Ending December 2013. MMG. [TCR 13_]

Denwer K.P. 2015. Zeehan EL28/1988 Annual Report for the Period Ending 9th December 2015. MMG. [TCR 15_]

Denwer K.P. 2016. Zeehan EL28/1988 Annual Report for the Period Ending 9th December 2016. MMG. [TCR 16_]

Dove A., Lee G. 1988. EL50/86 Tasmania, Annual Report on Exploration Completed in the Trial Harbour-Strahan Area of Western Tasmania to 15/5/88 Prepared for national Mineral Sands Pty Ltd. Peter H. Stitt & Associates Pty Ltd. [TCR 88_2803]

Ellis P.D. 1980. Progress Report Exploration Licence 1/63 for Six Months Ending August 11, 1980. Cleveland Tin Ltd. [TCR 80_1485]

Evans K.L. 1957. Visit to Zeehan to Investigate Access to 10th Legion Area on the Comstock Magnetite Deposits. Memorandum. Department of Mines, Hobart.

Fyfe R., McNeill D. 2007. Exploration Licence 20/2002 Annual Report December 2006 - December 2007. Zeehan Zinc Exploration Pty Ltd. [TCR 08_5579]

Garretty M.D. 1947. Report on Current Activity at Zeehan. Zeehan Exploration NL. [TCR 47_0095]

Goldberg I. 1995. A Preliminary Report on Geoelectrochemical Investigations in the area of Zeehan (Tasmania), Area of Investigations involves Henty River ETA 349, Mt Zeehan ETA 348, Bluestone Creek ETA 344, Prognostic Evaluation of the Territory Stage II. Allegiance Mining NL. [TCR 95_3740]

Green D. 2003. Tube number 11b: Stonehenge, 1982-86 (Including SPL129, EL11/76). Tasmanian Mineral Exploration. [TCR 03_4900]

Green D. 2003. SPL129. Tasmanian Mineral Exploration. [TCR 03_4913]

Hackett D.O'N. 1969. Second Report on investigations at Trial Harbour Tasmania, Special Prospectors Licence Number 22. Electrolytic Zinc Company of Australasia Ltd. [TCR 69_]

Hallot P.G., Burnside E. 1970. Report on the Induced Polarization and Resistivity Survey on the Trial Harbour Grid, Zeehan Area, Tasmania for Electrolytic Zinc Company of Australasia Pty Ltd. McPhar Geophysics Pty Ltd. [TCR 70_0657]

Harvey S.R.M. 1983. Final Report EL5/76, Trial Harbour, EL16/73, Ocean Beach. Abbotsford Pty Ltd. [TCR 83_2016]

He J., Hansen M.R. 2011.Annual Report on Exploration Licence 20/2002 For the Period December 2010 - December 2011. Creat Resources Holdings Ltd. [TCR 12_6376]

Heath P. 2004. Zeehan Mineral Field Exploration Licence 30-2002 Part-relinquishment Report. Zeehan Zinc Exploration Pty Ltd. [TCR 04_5069]

Hill J. 2011. Minerals and Metals Group Report for Exploration Tracks and Drill Pads at Trial Harbour, Melba Flats and Lake Rosebery: Botanical Survey and Fauna Habitat Assessment, August 2011. GHD. [TCR 11_6340D]

Holyland P. 1983. Little Henty Beach Sands. Memorandum. Gold Fields Exploration Pty Ltd. [TCR 83_1992]

Howland-Rose A.W. 1989. Exploration Licence 28/88 - Zeehan Annual Report for Period 19th May 1989 to 31st October 1989. Major Mining Ltd. [TCR 89_3046]

Howland-Rose A.W. 1990. Exploration Licence 28/88 - Zeehan Annual Report for Period 1st November 1989 to 31st October 1990. Major Mining Ltd. [TCR 90_3204]

Jones M. 2003. Avebury Nickel Project Stage 1 - Viking Decline Development, Development Proposal and Environmental Management Plan. NSR Environmental Consultants Pty Ltd. [TCR 03_4979B]

Kilpatrick D. 1982. Federation and Trial Harbour Areas, EL11/76 and SPL129, Annual Report 1981-82. Renison Ltd. [TCR 82_1827]

Komyshan P. 1984. EL5/83 Little Henty Area Annual Report 1983-84. Gold Fields Exploration Pty Ltd. [TCR 84_2158]

Komyshan P., Cartwright A.W., Roberts P.A. 1984. EL11/76 Trial Harbour Area Annual Report for 1983/84. Gold Fields Exploration Pty Ltd. [TCR 85_2315]

Legge P.J., Callaghan T. 2008. The Avebury and Trial Harbour Nickel Deposits, Tasmania: A Geological Compilation. New Challenge Resources Pty Ltd. Unpublished Report.

Legge P.J. 2008. Initial Comment on Tasmania's Nickel & PGM Deposits. New Challenge Resources Pty Ltd. Unpublished Report.

Loxton R.F. 1978. A Photogeological Study of the Heemskirk Granite and the Area Surrounding Zeehan, Western Tasmania undertaken on behalf of Renison limited. RF Loxton, Hunting and Associates. [TCR 78_1299]

MacDonald G. 2017. Annual Report on Exploration EL28/1988 "Mt Zeehan" Dec. 2016 to Dec. 2017. Lottah Mining Pty Ltd. [TCR 17_]

Mackay-Scollay B. 2014. Controls on Ni Mineralisation at the Avebury Deposit, Western Tasmania. Unpublished Honours Thesis, Monash University, Australia.

Mathison I.J. 1984. Exploration Licence No 4/78 - Zeehan, Progress Report on Exploration Activity 14th January, to 14th June 1984. Electrolytic Zinc Company of Australasia Ltd. [TCR 84_2208]

Mathison I.J. 1986. Exploration Licence No 4/78 - Zeehan, Progress Report on Exploration Activity 30th April 1985 to 30th April 1986. Electrolytic Zinc Company of Australasia Ltd. [TCR 86_2547]

Mathison I.J. 1987. Exploration Licence No 4/78 - Zeehan, Progress Report on Exploration Activity 30th April 1986 to 30th April 1987. Electrolytic Zinc Company of Australasia Ltd. [TCR 87_2699]

Mathison I.J. 1988. Exploration Licence No 4/78 - Zeehan Relinquishment Report Including Report on Exploration Activity 30th April 1987 to 31st May 1988. Electrolytic Zinc Company of Australasia Ltd. [TCR 88_2828]

Mathison I.J., Kary G. 1984. Exploration Licence No 4/78 - Zeehan, Progress Report on Exploration Activity 14th June 1983 to 14th January 1984. Electrolytic Zinc Company of Australasia Ltd. [TCR 84_2104]

McCarthy E. 1957. Geophysical Surveys in NW Tasmania to 31st May 1957. Rio Tinto Australian Exploration Pty Ltd. [TCR 57_0167]

McCarthy E. 1958. Geophysical Surveys - Tasmania. CRA Exploration Pty Ltd. [TCR 83_1916]

McClenaghan M.P. 2006. The geochemistry of Tasmanian Devonian-Carboniferous granites and implications for the composition of their source rocks. *Tasmanian Geological Survey Record* 2006/06. Mineral Resources Tasmania.

McGilvray C.T. 2011. Trial Harbour EL22/1997 Annual Report for the Period Ending 30th June 2011. MMG. [TCR 11_6280]

McGilvray C.T., Denwer K. 2011. Zeehan EL28/1988 Annual Report for the Period Ending December 2011. MMG. [TCR 11_6340]

McIntosh Reid A. 1927. Preliminary Report on Birthday Mine, Mount Agnew. Mines Department, Tasmania.

McKeown M.V. 1998. Results of Diamond Drilling on the Avebury Grid EL28/88 By Allegiance Mining NL. McKeown Mining Pty Ltd. [TCR 98_4183]

McKeown M.V. 1998. A New View of the Zeehan Mineral Field Prepared on behalf of Allegiance Mining NL. McKeown Mining Pty Ltd. [TCR 98_4184]

McNiell A. & Simpson K.L. 2000. Dundas - EL 21/96, Annual Report for the Period 9/10/99 to 8/20/00. Pasminco Exploration. [TCR 00_]

Murphy B., Denwer K., Keele R., Stapleton P., Korsch R., Seymour D. & Green G. 2001. Tasmanian Mineral Province Geoscientific database, 3D Geological Modelling, Mines and Mineral Prospectivity. Project T3 Release Notes. pmdCRC, University of Melbourne; Mineral Resources Tasmania, Hobart.

Newnham L.A. 1974. SPL129 Trial Harbour Area, Summary Report (1973-74) and Recommendations. Renison Ltd. [TCR 74_1031]

Newnham L.A. 1974. SPL129 - Trial Harbour Area, Western Tasmania, Progress Report August 1974, Recommendations for 1974-75. Renison Ltd. [TCR 74_1040]

Newnham L.A. 1996. EL14/94 Zeehan Area Annual Report for Year Ending October 96 Prepared for Allegiance Mining NL. Newnham Exploration & Mining Services. [TCR 96_3926]

Newnham L.A. 1996. EL15/94 and Part EL14/94, Zeehan Area Relinquishment Report Prepared for Allegiance Mining NL. Newnham Exploration & Mining Services. [TCR 96_3927]

Newnham L.A. 1998. Report to Support Application for two-year Extension of EL28/88 - Zeehan for Allegiance Mining NL. Newnham Exploration & Mining Services. [TCR 98_4182]

Newnham L.A. 1998. EL22/97 Trial Harbour Area 1997-1998 Annual Report prepared for Allegiance Mining NL. Newnham Exploration & Mining Services. [TCR 98_4189]

Newnham L.A. 1998. EL28/88 Trial Harbour Area Annual Report November 1997 - October 1998 prepared for Allegiance Mining NL. Newnham Exploration & Mining Services. [TCR 98_4229]

Newnham L.A. 1999. EL22/97 Trial Harbour Area 1998-1999 Annual Report prepared for Allegiance Mining NL. Newnham Exploration & Mining Services. [TCR 99_]

Newnham L.A. 1999. EL2/96 - Trial Harbour Area Annual Report for 12 Months Ending February 1999 prepared for Allegiance Mining NL. Newnham Exploration & Mining Services. [TCR 99_4308]

Newnham L.A. 1999. EL28/88 Trial Harbour Area Annual Report prepared for Allegiance Mining NL. Newnham Exploration & Mining Services. [TCR 98_4386]

Newnham L.A. 2000. EL2/96 - Tenth Legion Area Report for Twelve-Month Period Ending February 2000. Allegiance Mining NL. [TCR 00_4424]

Newnham L.A. 2000. EL22/97 - Trial Harbour Area Annual Report to August 2000. Allegiance Mining NL. [TCR 00_4471]

Newnham L.A. 2000. EL28/88 - Stonehenge Prospect Report on Drilling Program September-October 1999. Allegiance Mining NL. [TCR 00_4509]

Newnham L.A. 2000. Zeehan Nickel Project Summary Profile. Allegiance Mining NL. [TCR 00_4455]

Newnham L.A. 2001. EL22/1997 Trial Harbour Area Annual Report to July 2001. Allegiance Mining NL. [TCR 01_4576]

Newnham L.A. 2001. Avebury Nickel Project Scoping Summary Report. Allegiance Mining NL. [TCR 01_4526]

Newnham L.A. 2001. Zeehan Project EL28/1988 Annual Report for Period Ending October 2001. Allegiance Mining NL. [TCR 01_4621]

Newnham L.A. 2001. Avebury Nickel Sulfide Project EL28/1988 - Western Tasmania Resource Report and Project Development Recommendations Report. Allegiance Mining NL. [TCR 01_4622]

Newnham L.A. 2002. EL14/2001 - Heazlewood Area Annual Report Year Ending 14 September 2002. Allegiance Mining NL. [TCR 02_]

Newnham L.A. 2002. EL28/1988 - Zeehan Area Partial Relinquishment Report. Allegiance Mining NL. [TCR 02_4795]

Newnham L.A. 2002. Zeehan Nickel Project EL28/1988 Annual Report for Period Ending December 2002. Allegiance Mining NL. [TCR 02_4833]

Newnham L.A. 2003. EL22/1997 - Trial Harbour Annual Report to July 2003. Allegiance Mining NL. [TCR 03_]

Newnham L.A. 2003. Zeehan Nickel Project EL28/1988 Annual Report for Period Ending December 2003. Allegiance Mining NL. [TCR 03_4979]

Newnham L.A. 2004. EL5/2002 Annual Report Year Ending March 2004. Allegiance Mining NL. [TCR 04_5024]

Newnham L.A. 2004. EL22/1997 - Trial Harbour Annual Report to July 2004. Allegiance Mining NL. [TCR 04_5065]

Newnham L.A. 2004. EL14/2001 - Heazlewood Area Annual Report Year Ending August 2004. Allegiance Mining NL. [TCR 04_5068]

Newnham L.A. 2004. Zeehan Nickel Project EL28/1988 Annual Report for Period Ending December 2004. Allegiance Mining NL. [TCR 04_5086]

Newnham L.A. 2005. Annual Report, EL37/2003 Fen Creek Area, Year Ending January 2005. Allegiance Mining NL. [TCR 05_5107]

Newnham L.A. 2005. EL22/1997 - Trial Harbour Annual Report to July 2005. Allegiance Mining NL. [TCR 05_5219]

Newnham L.A. 2005. Zeehan Nickel Project EL28/1988 Annual Report for Period Ending December 2005. Allegiance Mining NL. [TCR 05_5248]

Newnham L.A. 2006. Annual Report EL37/2003 - Fen Creek Area Year Ending January 2006. Allegiance Mining NL. [TCR06_]

Newnham L.A. 2006. EL22/1997 - Trial Harbour Annual Report to July 2006. Allegiance Mining NL. [TCR 06_5343]

Newnham L.A. 2006. Zeehan Nickel Project EL28/1988 Annual Report for Period Ending December 2006. Allegiance Mining NL. [TCR 06_5384]

Newnham L.A. 2007. Annual Report EL37/2003 - Fen Creek Area Year Ending January 2007. Allegiance Mining NL. [TCR 07_]

Parfrey O., Simpson K.L. 1999. Dundas - EL21/96, Annual Report for the Period November 1998 to November 1999. Pasminco Exploration. [TCR 00_4413]

Parkinson R.G. 1992. EL28/88 Zeehan No 1 Tasmania Report on Exploration for the Fourth Year of Tenure 9-11-1991 to 9-10-1992. CRA Exploration Pty Ltd. [TCR 92_3398]

Parkinson R.G. 1993. Zeehan No 1 EL28/88 Report on Exploration for the Fifth Year of Tenure 9/11/1992 to 9/11/1993. CRA Exploration Pty Ltd. [TCR 93_3519]

Parkinson R.G. 1993. Zeehan No 1 EL28/88 Report on Exploration on Relinquished Areas for the Period 9/12/88 to 9/11/1993. CRA Exploration Pty Ltd. [TCR 93_3521]

Parkinson R.G. 1994. Zeehan No 4 EL38/89 Tasmania Report on Exploration for the Fourth Year of Tenure 1/3/93 to 28/2/94. CRA Exploration Pty Ltd. [TCR 94_3550]

Parkinson R.G. 1994. Zeehan No 1 EL28/88 Report on Exploration for the Sixth Year of Tenure 9/11/93 to 9/11/94. CRA Exploration Pty Ltd. [TCR 94_3655]

Paterson R.G. 1971. Preliminary Report on the Trial Harbour Prospect EL7/68 - West Tasmania. Texins Development Pty Ltd. [TCR 71_0735]

Paterson R.G. 1971. Dundas Permits - Exploration Targets for the Period June 1970 - March 1971. Texins Development Pty Ltd. [TCR 71_0748]

Poltock R. 1987. EL19/86 Trial Harbour, Tasmania Annual Report for the Period October 1986 - September 1987 for RW Creasy. Roger Poltock Geological Pty Ltd. [TCR 87_2715]

Poltock R. 1988. EL19/86 Trial Harbour, Tasmania Annual Report for the Period October 1987 - September 1988 for RW Creasy. Roger Poltock Geological Pty Ltd. [TCR 88_2874]

Provis J. 1889. Report on the General Aspects of the Mt Zeehan Silver Mines. Department of Land and Works

Radke F. 2005. Petrolgy of Three Core Samples for Allegiance Metals Pty Ltd. Report N1590PE05, Amdel. Unpublished Internal Report.

Radke F. 2006. Petrolgy of Twelve Samples for Allegiance Metals Pty Ltd. Report N2184PE06, Amdel. Unpublished Internal Report.

Radke F. 2006. Petrolgy of Twenty-one Samples for Allegiance Metals Pty Ltd. Report N2060PE06, Amdel. Unpublished Internal Report.

Radke F. 2006. Petrolgy of Sixteen Samples for Allegiance Metals Pty Ltd. Report N2185PE06, Amdel. Unpublished Internal Report.

Radke F. 2008. Petrolgy of Sixteen Samples from Avebury, Tasmania for Allegiance Metals Pty Ltd. Report N2885PE08, Amdel. Unpublished Internal Report.

Reid R. 2001. Report on Geological mapping and Rock Chip Sampling of the Avebury and Trial Harbour Areas EL's 28/88 & 22/97. Allegiance Mining NL. [TCR 01_4523]

Roberts P. 1980. Trial Harbour Area SPL129 Annual Report 1979-80. Renison Ltd. [TCR 80_1492]

Roberts P. 1981. Federation and Trial Harbour Area, EL11/76 and SPL129 Annual Report 1980-81. Renison Ltd. [TCR 81_1629]

Roberts P.A. 1984. Relinquishment Report on Northern Portion of EL11/76. Gold Fields Exploration Pty Ltd. [TCR 84_2146]

Roberts P.A. 1985. EL11/76, Trial Harbour Area, Relinquishment Report - Western 44sq. Km. Gold Fields Exploration Pty Ltd. [TCR 85_2323]

Roberts P.A., Komyshan P., Cartwright A.J. 1983. Trial Harbour Area SPL129 Annual Report 1982-83. Gold Fields Exploration Pty Ltd. [TCR 83_2052]

Ross A. 1977. SPL129 Trial Harbour, Western Tasmania, Annual Report 1976/77. Renison Ltd. [TCR 77_1236]

Ross A. 1979. SPL129 - Trial Harbour Area Annual Report 1978-79. Renison Ltd. [TCR 79_1378]

Roxburgh B., Jones P. 1980. Progress Report June 1979 to June 1980 Zeehan Project Exploration Licence 4/78 Tasmania. Amoco. [TCR 80_1495]

Russell S.A.J. 1998. Ninth Annual Report for the Period Ending 9 November 1997, EL28/88 Zeehan 1, Tasmania. Rio Tinto Exploration Pty Ltd. [TCR 98_4136]

Russell S.A.J. 1998. EL28/88 Zeehan 1, Tasmania Partial Relinquishment Report. Rio Tinto Exploration Pty Ltd. [TCR 98_4138]

Seymour D.B., Calver C.R. 1995. Explanatory notes for the Time-Space Diagram and Stratotectonic Elements Map of Tasmania. *Tasmanian Geological Survey Record* 1995/01. Mineral Resources Tasmania.

Seymour D.B., Green G.R. and Calver C.R. 2007. The Geology and Mineral Deposits of Tasmania: A summary. *Tasmanian Geological Survey Bulletin No* 72. Mineral Resources Tasmania.

Stephenson P., Newnham L.A. 1978. SPL129 - Trial Harbour Annual Report 1977-78. Renison Ltd. [TCR 78_1300]

Stewart L.F. 2009. EL28/1988 Zeehan Annual Report to November 2009. MMG. [TCR 09_5972]

Summons T.G. 1991. EL28/88 Zeehan, Tasmania Statutory Progress Report for the Period Ending 9th November 1991. CRA Exploration Pty Ltd. [TCR 91_3313]

Taylor B.L. 1955. Asbestos in Tasmania. Geological Survey Mineral Resources No 9. Department of Mines, Tasmania.

Taylor S. 1983. Amoco-EZ Exploration of the Gordon Limestone. EZ. [TCR 83_2071]

Taylor S. 1984. EL4/78 (Zeehan) Quarterly Report - First Quarter 1984. Electrolytic Zinc Company of Australasia Ltd. [TCR 84_2192]

Tear S.J. 1996. Seventh Annual Report for the Period Ending 9/11/95 EL28/88 Zeehan No 1, Tasmania. CRA Exploration Pty Ltd. [TCR 96_3882]

Tear S.J. 1996. Eighth Annual Report for the Period Ending 9 November 1996 EL28/88 Zeehan No 1, Tasmania. CRA Exploration Pty Ltd. [TCR 97_3958]

Tear S.J., Tesselaar J. 1996. Preliminary Notes and Observations of the Helicopter-borne Magnetic Survey Zeehan, Tasmania. CRA Exploration Pty Ltd. [TCR 96_3902]

Thigpen J.B. 1972. Detailed Mineral Exploration Programme in the Tenth Legion Fault Area, EL7/68 Heemskirk, Western Tasmania for Texins Development Pty Ltd. Geophoto Resources Consultants. [TCR 72_0871]

Twelvetrees W.H. 1900. Report on the Mineral Districts of Zeehan and Neighbourhood. Department of Mines, Hobart.

Twelvetrees W.H., Ward L.K. 1910. The Ore-Bodies of the Zeehan Field. *Geological Survey Bulletin No* 8. Department of Mines, Tasmania.

Veska L. 2010. Exploration Licence 20/2002 Annual Report December 2009 - December 2010. Creat Resources Holdings. [TCR 11_6191]

Wallace D. 2015. Avebury Mine Leases ML 6M 2007 and 3M 2003 Annual Report for the Period Ending 16th October 2015. MMG. [TCR 15_]

Wallace D. 2017. Melba Flats, Tas: EL43/1992, Annual Exploration Report (Reporting Period 17th April 2016 to 16th April 2017). MMG Australia Ltd. [TCR 17_]

Wells K. 1975. Annual Report, Trial Harbour SPL129, 1974-75. The Mount Lyell Mining and Railway Co ltd. [TCR 75_1114]

Wells K. 1976. Report on the Federation Area EL11/76. Renison Ltd. [TCR 76_1163]

Wells K. 1976. Annual Report, Trial Harbour SPL129, 1975-76. Renison Ltd. [TCR 76_1173]

Wells K. 1977. Progress Report Federation Area El11/76. Renison Ltd. [TCR 77_1240]

Wells K. 1978. Federation Area EL11/76 Annual Report 1977-78. Renison Ltd. [TCR 78_1283]

Wighton K.G. 2010. EL28/1988 Zeehan Annual Report to December 2010. MMG. [TCR 10_6180]

Wighton K.G. 2011. EL37/2003 Fen Creek Annual Report to February 2011. Allegiance Mining Pty Ltd, MMG. [TCR 11_6216]