



**SMRV PROJECT
EL 21/1999 - Wanderer River
South West Tasmania.**

**PARTIAL RELINQUISHMENT
REPORT
January 2004**

Title Holder: TasGold Ltd.
Level 1, 94 Bundall Rd
Bundall, Queensland.

Distribution: 1 - Mineral Resources Tasmania
2 - TasGold Ltd

Compiled By: D. Hall
Date: March 2003

SUMMARY

Those parts of EL 21/1999 which have no drainage geochemistry of interest from historic sampling (by previous licence holders) nor any features of interest on the recently re-interpreted air mag and radiometrics survey flown for Mineral Resources Tasmania's Western Tasmanian Regional Minerals Programme.

TABLE OF CONTENTS

1. INTRODUCTION.....	1
2. GEOLOGY.....	2
3. EXPLORATION MODEL(S).....	4
4. PREVIOUS EXPLORATION	5
5 EXPLORATION COMPLETED ON THE RELINQUISHED AREA DURING THE LICENCE TENURE.....	7

LIST OF FIGURES

Figure 1: Location of EL 21/1999 showing relinquished area

Figure 2: EL 21/1999 showing K radiometrics

Figure 3: EL 21/1999 showing TMI

Figure 4: EL 21/1999 showing Thorium

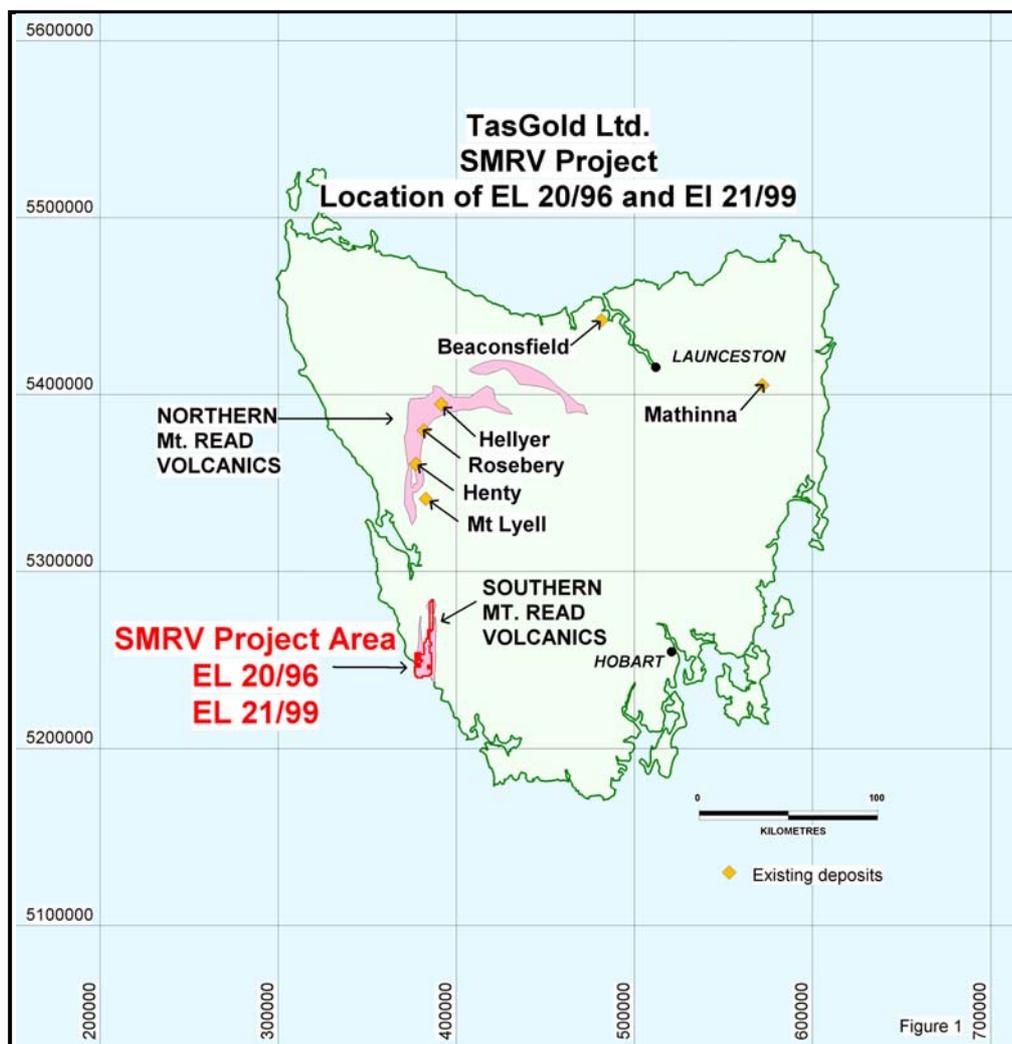
1. INTRODUCTION

Tenure

Parts of central and south – west Tasmania are World Heritage listed. The rocks underlying EL 21/99 (and some volcanics of the Sorell Peninsula) have been specifically excluded from this listing on the basis of their mineral prospectivity.

Prior to the World Heritage listing all areas were classified as part of the South West Conservation Area. In 1992, the Tasmanian Government proclaimed the prospective rocks south of Macquarie Harbour to be within the Sorell Peninsula Prospectivity Zone in recognition of the mineral potential of the area. Any change in the status of the land within the Zone requires approval of both houses of the Tasmanian parliament with any affected party entitled to compensation.

EL 21/99 south of Macquarie Harbour covers 14km² in SW Tasmania. EL21/99 was granted to Exploration & Management Consultants Pty Ltd and McNeil Associates Pty Ltd on 26 January 2001. TasGold has acquired a 90% interest in the granted tenement from Exploration & Management Consultants Pty Ltd and McNeil Associates Pty Ltd. The location of the licence is shown in Figure 1.



Access & Weather

Access to the area is by a rough, unformed track only suitable for 'Bombardier' style transport or four-wheel drive motorbikes, the Low Rocky Point track, from Macquarie Harbour. Larger vehicles (such as drill rigs and support vehicles) need to be ferried across Macquarie Harbour by barge or boat. The alternative and best access is by helicopter or light aircraft but this is subject to the weather.

The area is very exposed to the south westerly weather that dominates the western side of Tasmania. Even in summer this can mean continuous days of persistent drizzle or driving rain.

Both of these factors make exploration difficult and any expeditions need to be well funded, planned and supplied, as this is an expensive and technically challenging exploration environment. Fieldwork is seasonal with ground access only feasible between December and May.

2. GEOLOGY

South West Tasmania is underlain by a belt of Cambrian volcanics which are considered to be equivalent in age and character to the Mount Read Volcanics in north west Tasmania. In northern Tasmania the Mount Read Volcanics (MRV) are hosts to a number of base metal and gold deposits.

General Geology

Within EL21/99, the MRV can be divided into two main areas, the D'Aguilar Range – Thirkell Hill area and the Elliott Bay area. The tenement is separated from the main belt of MRV north of the Gordon River and the two main areas are separated by a Tertiary graben (Moore's Valley).

The geological understanding is hindered by relative lack of drilling and the nature of the surface outcrops, which are generally leached and bleached.

Elliott Bay area

Late Cambrian – Ordovician siliciclastics interpreted as Owen Conglomerate correlates are folded into a gently north plunging syncline with a shallowly dipping eastern limb and a steeply dipping to slightly overturned western limb. This is known as the Mt Osmond syncline. The Owen Conglomerate unconformably overlies MRV.

The sequence on the eastern limb of the Mt Osmond syncline from east to west is:

- a Precambrian sequence of multi - deformed metasediments;
- a westerly dipping unit of volcanoclastic and siliciclastic sediments correlated with the Sticht Range beds of the northern MRV sequence. This unit overlies the Precambrian partly in faulted contact and partly unconformably;
- a 2 to 3 kilometre thick quartz – feldspar – biotite porphyry, the Elliott Point Porphyry, occurs to the east;
- west of the Elliott Point Porphyry, the eastern limb of the Lewis River Volcanics occurs. This has been subdivided into the Hudson River and Wart Hill Pyroclastics. These consist of quartz – feldspar – phyrlic volcanoclastics including sediments and possible pyroclastics, quartz – feldspar phyrlic lavas (intrusives?), quartz – feldspar – biotite phyrlic lavas and intrusives and minor intermediate lavas or intrusives;

- the Waterloo Creek Group unconformably overlies the volcanics. These occur as a unit of felsic derived volcanoclastics, overlain by a unit of black pyritic shale with minor horizons of micaceous siltstone; and
- the Owen Conglomerate siliciclastics conformably overlie the Waterloo Creek Group.

The sequence on the western limb of the Mt Osmond syncline is as follows:

- west of the Waterloo Creek Group, the rocks consist of quartz – feldspar phyric volcanoclastics including sediments, quartz – feldspar – biotite phyric lavas (intrusives?), quartz – feldspar phyric lavas (intrusives?) and sediments ranging from black to grey shales, sandstones, vitric tuffaceous siltstones and siliciclastic sandstone, conglomerate and breccia. These rocks form part of the Wart Hill Pyroclastics;
- the Wart Hill Pyroclastics are followed to the west by a unit of interbedded conglomerate and sandstone with minor shale and siltstone. This varies compositionally from predominantly volcanoclastic to predominantly siliciclastic. A unit of shales and siltstones with minor volcanoclastics in turn follows this. These two units are called the Western Epiclastics;
- the Copper Creek fault is a major fault that extends from south to south – south – west through the Western Epiclastics. To the west of this fault the Western Epiclastics contain mafic volcanics possibly akin to the Mainwaring River Group further to the west;
- the western margin of the Western Epiclastics is faulted (Copper Creek fault?) and rocks to the west of this consist predominantly of sedimentary and volcanoclastic rocks of quartz – feldspar – phyric and feldspar – phyric composition. There are also units of plagioclase – pyroxene – phyric lavas, black to grey shales, siltstones and sandstones with an intercalated felsic to intermediate volcanoclastic; and
- the western boundary of this package is also in faulted contact with Mainwaring River group tholeiitic mafic lavas (intrusives) and mafic derived volcanoclastics.

Three granitoid bodies intrude the MRV, the Low Rocky Point granite, the Little Rocky River granite and the Stoney Creek granitic porphyry. The Low Rocky Point granite is a composite intrusion consisting of pink granite, cream adamellite and coarse porphyritic granite. The Stoney Creek body comprises granite porphyry with feldspar, quartz and biotite phenocrysts in an intensely sericitised and cleaved matrix. The Little Rocky River granite is also a composite intrusion consisting of massive granite porphyry and a strongly foliated medium – grained quartz feldspar porphyry.

The relative timing of these intrusions and folding events is not known. There is, however, fairly good consensus that the granitoids are more or less synvolcanic i.e. Cambrian and predate deformation. Anomalous tin in geochemical samples is associated with the granitoid bodies.

General correlations have been made with the major units of the Elliott Bay area with those in the main part of the MRV to the north. Although specific correlations with the better known lithostratigraphy of the northern section of the MRV (north of Macquarie Harbour) are unavailable, there is consensus that the Elliott Bay area does represent the southern continuation of the MRV.

Thirkell Hill area (northern section EL 21/99)

The MRV lie on the eastern limb of a north striking, shallowly north plunging syncline. Ordovician siliciclastics lie in the core of the fold. The western limb of the fold has been downfaulted during the formation of a Tertiary graben. The sequence dips at 60° – 70° and faces west.

A sequence of coarse to fine grained sediments with mixed Precambrian and volcanic provenance unconformably overlies Precambrian metasediments. To the north this sequence is in faulted contact with Ordovician siliciclastics. The unit fines from east to west and changes compositionally from Precambrian provenance to volcanic provenance. The sequence has been correlated with the Sticht Range Beds further north in the MRV.

A large, elongate body of coarse quartz – feldspar – biotite phyric porphyry occurs to the west of the sediments. It has been interpreted to be a Cambrian intrusive. Similar intrusives occur in the MRV package to the north and south.

A package of mixed felsic (quartz – feldspar ± biotite phyrlic) lavas or intrusives and felsic volcanoclastics occur further west. This unit is the main exploration target for VHMS deposits and possibly gold deposits near the intrusive porphyry contact. Within this unit in the northern part of the area east of Mt Lee, a unit of “siliciclastic breccia – conglomerate with quartzite clasts” cuts across the regional strike. Petrologic examination indicates that the silica may originate as hydrothermal filling along a fault. The volcanics underlying this body are strongly silica – sericite ± hematite altered.

A unit of felsic volcanoclastics, conformably overlies this package and is in turn overlain by fine shales / siltstones. These rocks are commonly schistose and sericitic and are correlates of the Waterloo Creek Group.

Siliciclastics interpreted as correlates of the Ordovician Owen Conglomerate to the north overlie the Waterloo Creek Group correlates. The contact may or may not be conformable.

A number of north – east and north – west trending wrench faults have been interpreted from aerial photography.

Mineralisation

Various exploration programs in the Elliott Bay and Thirkell Hill areas have identified a number of distinct types of mineralisation.

Base metal sulphide mineralisation as:

- VHMS massive sulphide style, eg Wart Hill;
- Vein style galena, sphalerite and arsenopyrite mineralisation along the Copper Creek fault;
- Disseminated Pb – Zn – Ag mineralisation in volcanoclastics
- Postulated Besshi style,

The latter styles of mineralisation are widespread. Lead isotope work has recognised an early Cambrian as well as a Devonian age base metal signature.

Gold mineralisation has been found associated with:

- VHMS deposits, eg at Wart Hill;
- quartz – pyrite – tourmaline alteration zones related to shears, eg at North Lewis;
- quartz – gossanous zones associated with magnetite – chlorite alteration at granite margins, eg the Low Rocky Point granite;
- stratabound vein style mineralisation in coarse pyroclastics, eg Sassy Creek;
- quartz veins, eg Hudson River Zone; and
- Tertiary gravels.

3. EXPLORATION MODEL(S)

VHMS base metal style

Large noted that Palaeozoic Australian VHMS deposits occur within the submarine portion of calc – alkaline volcanic belts that are composed of a series of complex volcanic centres with related epiclastic facies .

The volcanic hosted massive sulphide (VHMS) deposit style of mineralisation in Tasmania is typified by the deposits already known in the northern section of the MRV. In the northern section of the MRV two types of VHMS deposits are known, viz high grade polymetallic stratiform massive zinc – lead – copper sulphides and low grade copper rich

disseminated to massive stratabound deposits. The precious metal contents of the MRV deposits are particularly high in comparison with other massive sulphide deposits worldwide.

Besshi base metal style

Besshi style deposits are generally thin but laterally extensive deposits of Cu – Zn (– Ag – Au ± Co) that occur in Palaeozoic and Proterozoic sequences in various parts of the World. Characteristically they are found in submarine tholeiitic rocks, associated with carbonate. Oxide – silicate iron formation, manganiferous exhalite and chlorite rich envelopes may be present.

Gold deposits

The most interesting target for gold mineralisation in the SMRV is a deposit similar to the currently operating Henty – Mt Julia gold mine in the northern MRV. This deposit hosts gold associated with sulphides in an alteration zone adjacent to the Henty fault that is a major syndepositional structure transgressing the MRV.

Stratabound gold mineralisation similar to the volcanic hosted Temora gold deposit in the Silurian volcanics of the Tasman Geosyncline in New South Wales could also occur. Here gold occurs in an alteration system with anomalous base metal (Pb) analyses associated with major zones of silicification. Gold could also occur in a variety of other styles including quartz veins in alteration zones and stockworks or sheeted vein systems in granite.

4. PREVIOUS EXPLORATION

Exploration and Mining History

Elliott Bay Area

The Elliott Bay area saw some minor historical prospecting probably in the period between 1890 and 1910 and old workings are visible at Voyager 1 (V1) also known as Penders Prospect, Lewis River (V2), and V3. The extensive alluvial gold at Sassy Creek was apparently overlooked during this early prospecting phase.

In 1957 the L. E. E. joint venture held the first modern EL in Tasmania the “Gordon Concession” which covered a large area of south – west Tasmania. They undertook an airborne EM, magnetics and scintillometer survey and undertook inspection and some mapping and sampling of the old workings.

BHP explored the south – west of Tasmania from 1965 to 1975. They also undertook airborne surveys (magnetics and scintillometer) as well as stream sediment geochemical sampling of the MRV and some soil geochemical sampling. They also undertook an airborne EM survey (McPhar H-400)

Geopeko (a division of Peko – Wallsend Operations) undertook an extensive exploration program in the area between 1976 and 1985 recognising the potential of this southern extension of the MRV. The work started collecting stream sediment geochemical samples, geological mapping and followup of regional EM and aeromagnetic anomalies. This work identified 35 prospects called Voyager, numbered V1 to V12 and V14 to V36. The prospects were identified by various methods as historical prospects and outcrops (V1, V2, V3, V12, V18 and V23), aeromagnetic anomalies (V5, V6, V7, V14, V15 and V17), airborne EM anomalies (V11, V21, V26 and V46), stream sediment geochemical anomalies (V8, V10, V24, V25, V27, V30, V31, and V35), soil geochemical anomalies (V28 and V29), favourable geology (V32, V33 and V35) and multi – disciplinary anomalies (V4, V9, V14, V19, V20 and V29). A number of these prospects are outside the area of the current granted tenement.

Further work included variously covering prospects with systematic gridding, soil geochemical sampling including C – horizon sampling, ground magnetics, VLF – EM and drilling. Between 1978 and 1981, drilling focussed on the prospectivity of the V9 prospect. This work led to the identification of the V22, and V34 anomalies.

Geopeko withdrew from the area in 1984 for a number of reasons, they had concluded that potential to locate an economic high-grade VHMS deposit within 100m of surface was low, exploration projects were being rationalised Australia wide and they were unable to attract a joint venture partner on favourable terms.

Cyprus Gold Australia Corporation (Cyprus) acquired the exploration rights in 1985 and undertook exploration between 1985 and 1990 targeting VHMS style massive sulphide deposits and gold. After a complete review of the Geopeko work, Cyprus undertook a helicopter borne Dighem – EM and magnetic geophysical survey as well as additional C – horizon soil and rock chip geochemical sampling and geological mapping. Anomalous areas were followed up with priority on V12 (North Lewis), V24 (Sassy Creek), V29 (East Camp) and V19 (Wart Hill).

At North Lewis (V12) Cyprus drilled 5 diamond core holes (349.6 m). Follow up geochemical soil sampling at Sassy Creek (V24) led to a recommendation to drill, but this was not undertaken. Cyprus drilled 3 diamond core holes (409 m) at East Camp (V29). Cyprus also drilled 12 diamond core holes (1,962.3 m) at Wart Hill (V19). Down the hole EM was completed on the majority of the drill holes.

In 1989 – 1990 Cyprus joint ventured the area with Aberfoyle Resources Limited (Aberfoyle). They undertook an airborne QUESTEM geophysical survey covering a large part of the area. This survey identified several anomalies that warranted ground follow up. Ground EM and soil geochemical sampling was undertaken over some of the anomalies. Aberfoyle also supported lead and sulphur isotopes work at the CSIRO and CODES (University of Tasmania).

Thirkell Hill Area

Australian Minerals completed a Turair survey and reconnaissance geochemical sampling in 1973.

Union Oil Development Corporation (Union Oil) undertook the first systematic modern exploration in the area in 1975. They constructed an access track from Birch Inlet and undertook grid based (31,000m) soil geochemical sampling and IP geophysical surveys over the southern two thirds of the area. They also completed an airborne EM geophysical survey over the southern third of the area and reconnaissance sampling elsewhere. This work identified several Pb, Zn, and Cu geochemical anomalies within the MRV. These appeared to be semi-continuous over strike lengths of 1 to 5 kilometres. Numerous more isolated IP, EM and geochemical anomalies were also identified.

Geopeko Ltd (Geopeko) undertook further field work in 1977 and subsequently briefly in 1981. Geopeko confirmed the Union Oil soil geochemical anomalies by analysing C – horizon soil auger geochemical samples. They reviewed several of the prospects and undertook extensive geological traversing. In 1981, Geopeko flew a Dighem EM geophysical survey and completed semi – detailed ground exploration over 2 prospects including extensive auger drilling on one prospect in the MRV.

CSR sampled 13 stream sites for gold in 1985 and collected 4 pan concentrates. The pan concentrates all showed anomalous gold up to 10 g/t Au. However, bulk leach and stream silt analytical results from the 13 sites were all low.

Recent Exploration

Elliott Bay Area

Macmin applied for an exploration license surrounding the Cyprus / Aberfoyle license in 1994. This was targeted on 3 geochemically anomalous areas; the margins of the Low Rocky Point granite, the Three Creeks and Upper Hudson

River areas. Macmin undertook field reconnaissance and soil (auger samples) and pan concentrate geochemical sampling.

Exploration & Management Consultants Pty Ltd (EMC) successfully tendered for the exploration rights to the SMRV area after Plutonic relinquished it and undertook a review of all the past work. In 1998 they joint ventured the area with Fimiston Mining NL (Fimiston).

Fimiston conducted a review and reprocessing of geophysical data then drilled two diamond core drillholes (752 m). One hole was drilled at Wart Hill (V19) and the other was drilled 500m to the south towards the East Camp prospect targeted on anomalous geochemical analyses and geophysics. Fimiston withdrew from the area in 1999. EMC has since focussed on digitising the large body of technical data.

Thirkell Hill Area

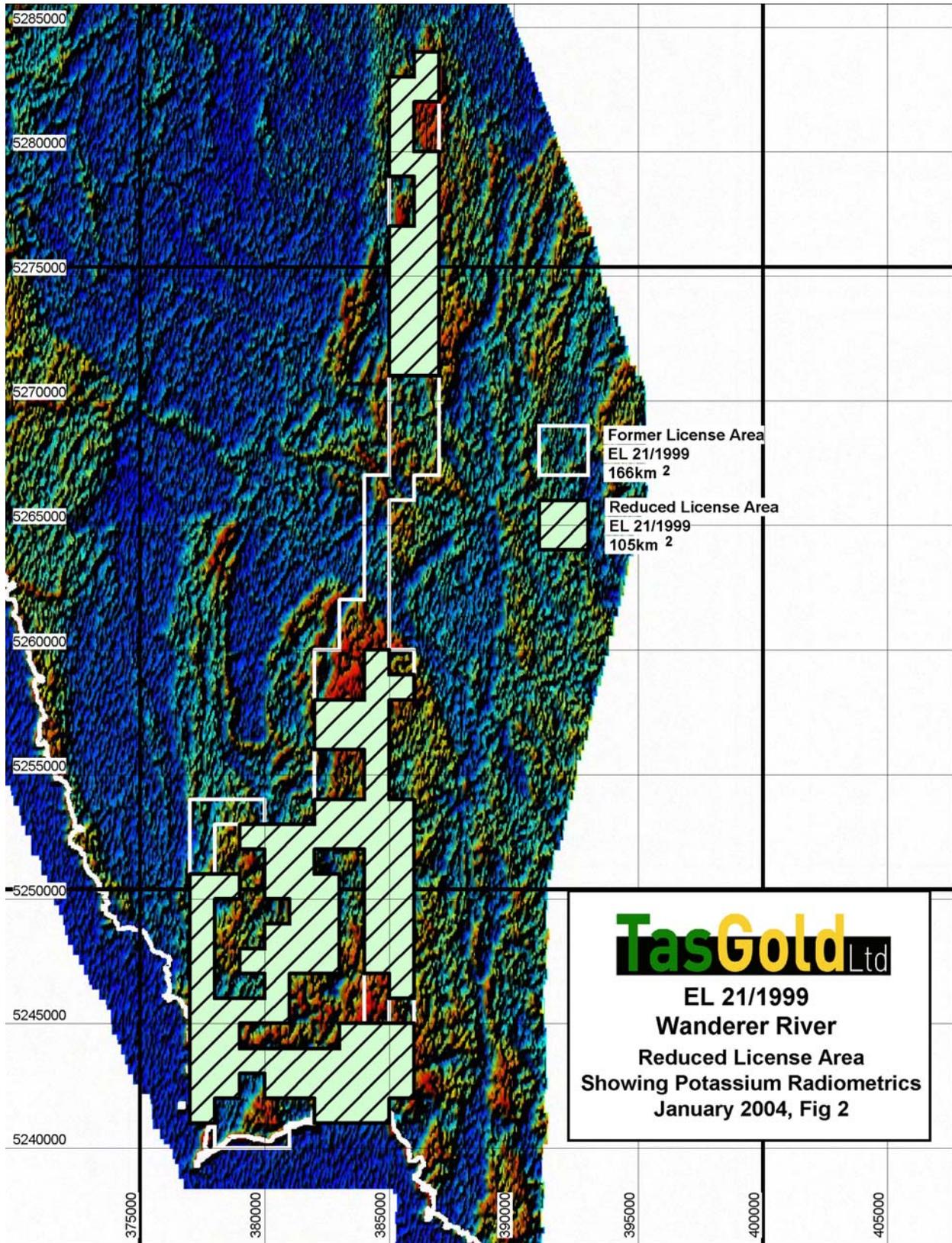
Macmin in joint venture with Anglo Australian Resources NL (AAR) undertook an extensive geochemical sampling program in 1993 and 1994. This included pan concentrate sampling, soil and rock chip sampling as well as a Huminex soil sampling program using MRT technology. This work led to diamond drilling and in 1995 six short drill holes (292.5m) were drilled on the Southern Porphyry Contact grid (south zone) targeted on “the best of the defined gold soil anomalies ”to test stratigraphic and structural associations. In 1996 further geochemical sampling was undertaken.

After AAR withdrew from the joint venture in 1997, Macmin undertook further drilling in 1998. Two diamond core drillholes (371m) were completed at the Condor prospect to test a base metal soil geochemical anomaly in MRV. Macmin’s targets were both VHMS style base metal sulphides and gold.

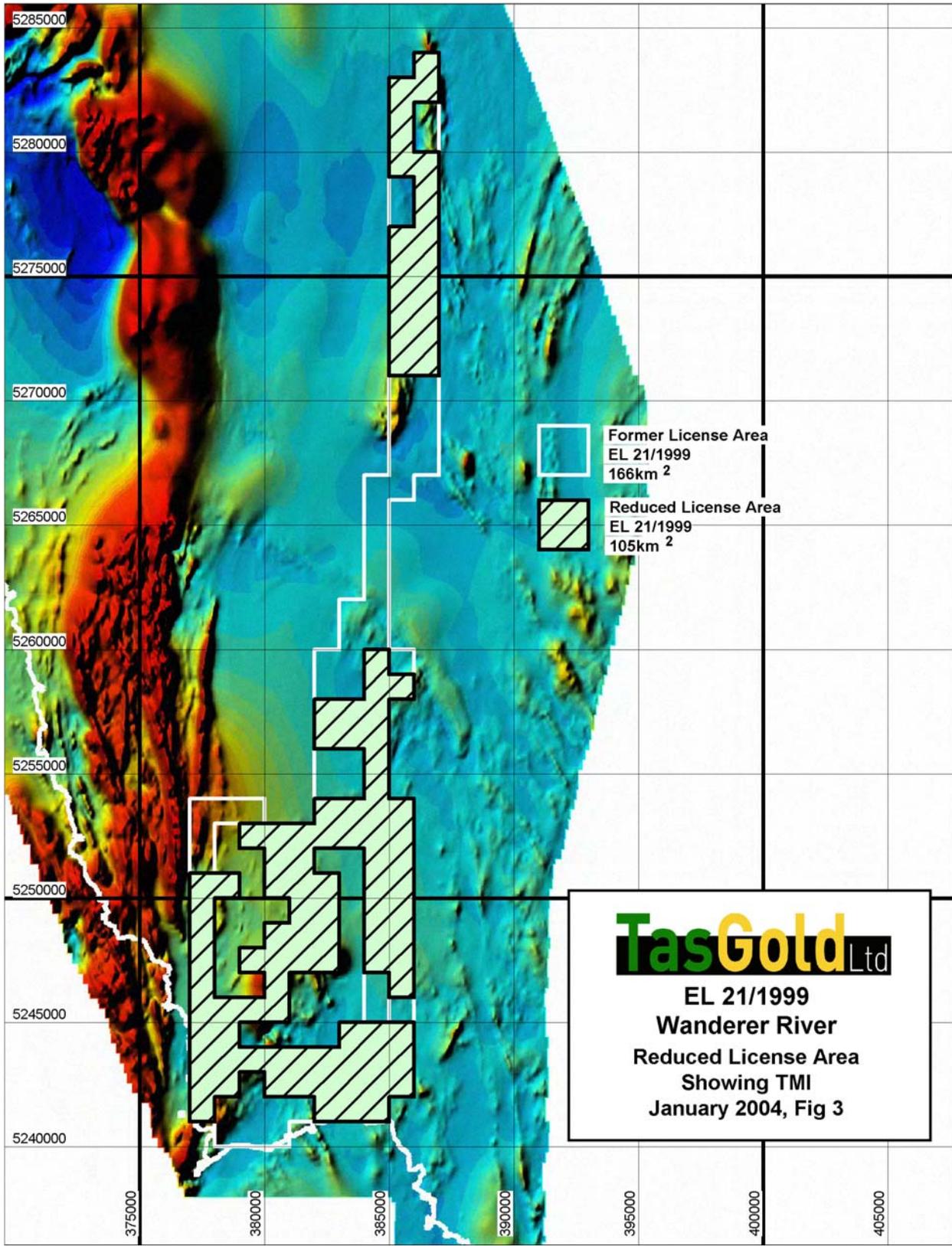
5. EXPLORATION COMPLETED ON THE RELINQUISHED AREA DURING THE LICENCE TENURE

Aeromagnetic and radiometric airborne survey data collected by Mineral Resources Tasmania between 1996-2001. This data was reprocessed and interpreted by Bruce Craven of Southern Geoscience Ltd and a series of views of the Total magnetic Intensity, potassium channel radiometrics and ternary (K, Th, U) radiometrics were generated. A number of targets were identified but none fall within the relinquished areas. Maps of the interpreted results are shown in Figs 2 - 4.

reduced 2004 showing potassium radiometrics (2248x2948x16M jpeg)



reduced 2004 showing TMI (2255x2952x16M jpeg)



reduced 2004 showing Thorium (2251x2952x16M jpeg)

