PARTIAL RELINQUISHMENT REPORT

EXPLORATION PERMIT MINERALS

EPM 14687 THUNDERBOLT

For the period 7th July 2005 to 6th July 2009

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Tenure Holder: Ivanhoe Cloncurry Mines Pty Ltd

Date: August 2009

CONTENTS

FIGURES

1 INTRODUCTION

EPM 14687 containing 37 sub-blocks was granted to Ivanhoe Cloncurry Mines Pty Ltd on 7 July 2005 for a term of 5 years. This partial relinquishment report describes the work completed by Ivanhoe Cloncurry Mines Pty Ltd on the relinquished sub-blocks over the term of the permit from 7 July 2005 to 6 July 2009.

In August 2008, Ivanhoe Cloncurry Mines Pty Ltd listed on the ASX as Ivanhoe Australia Ltd (IAL).

Exploration targets for EPM 14687 range from Iron Oxide-Copper-Gold style mineralisation, copper-gold mineralisation, massive sulphide Pb-Zn-Ag deposits and uranium mineralisation hosted either within granites or within sandstones or limestone horizons.

The rocks of EPM 14687 consist of Proterozoic Cover Sequences 2 and 3.

No work was completed by Ivanhoe Cloncurry Mines within the relinquished sub-blocks of EPM 14687 during the period.

2 LOCATION AND ACCESS

EPM 14687 lies approximately 80 km south of Cloncurry (Fig. 1**)** on the Chatsworth and Devoncourt Pastoral Holdings.

Vehicle access is by sealed road from Cloncurry to Malbon then via public unsealed roads. Road access is good from March to December with intermittent closure due to flooding and heavy rains possible from January to March. Limited existing tracks can be used by 4 wheel drive vehicles for access within the tenement.

3 TENURE

EPM 14687 originally consisted of 37 sub-blocks and was granted to Ivanhoe Cloncurry Mines Pty Ltd on 7 July 2005 for a term of 5 years. Eighteen sub-blocks were relinquished on 19 December 2007. A further 9 sub-blocks were relinquished on 6 July 2008, leaving 10 sub-blocks in the tenement. Five more sub-blocks were relinquished on 6 July 2009. There are currently 5 sub-blocks in EPM 14687 (Fig. 2).

Relinquished sub-blocks:

BIM	Block	Sub-blocks
Clon	1252	D H J K P

Total = 5 relinquished sub-blocks

Retained sub-blocks:

BIM	Block	Sub-blocks
Clon	1252	U
Clon	1253	F L Q R

Total = 5 retained sub-blocks

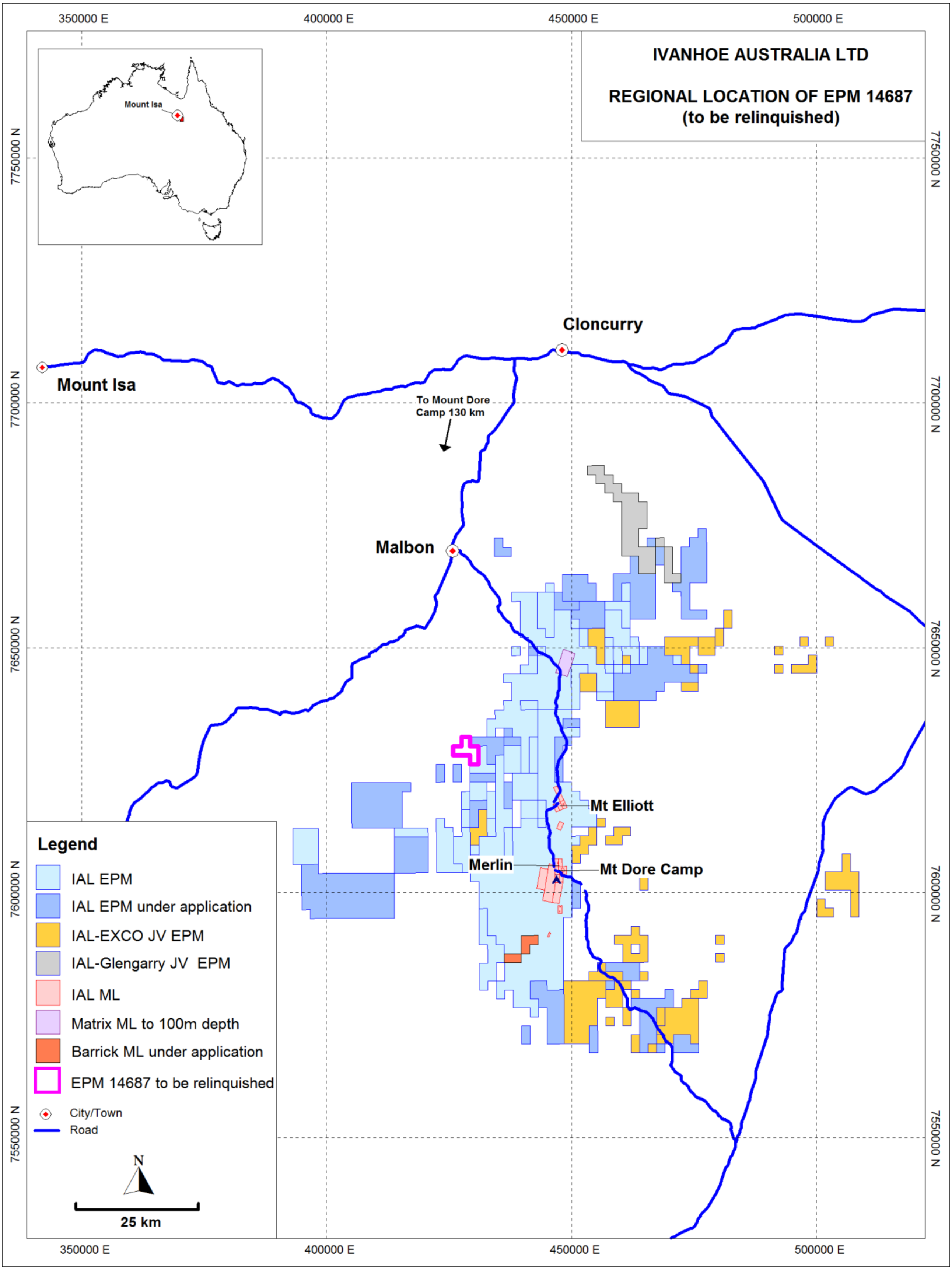

Fig. 1: Regional location of Relinquished sub-blocks of EPM 14687

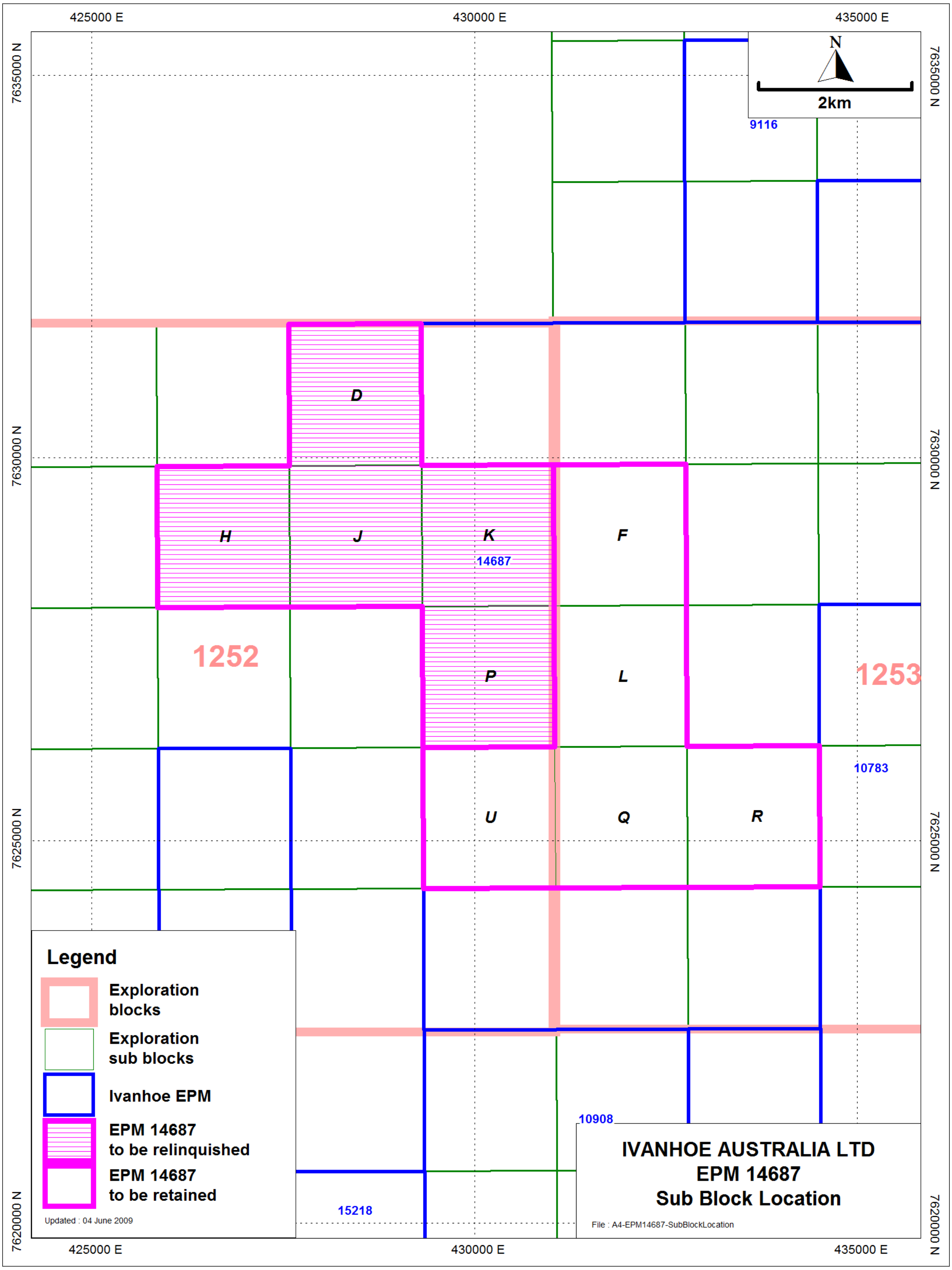

Fig. 2: EPM 14687 sub-block diagram

4 GEOLOGY AND MINERALISATION

4.1 Regional Geology

EPM 14687 lies within the Eastern Fold Belt of the Mt Isa Inlier (Fig. 3)**.** The oldest rocks outcropping within the Eastern Fold Belt belong to the basement sequence which was metamorphosed to amphibolite facies during Barramundi Orogeny (1890-1870 Ma). Some basement rocks are found directly west of the Starra Mine **(Blake and Stewart, 1992)** and consist of highly deformed gneiss, migmatite, schist and strongly foliated granites **(Blake, 1987)**.

Unconformably overlying the basement rocks, the Mesoproterozoic rocks of the Eastern Fold Belt can be divided into two broad cover sequences, Cover Sequences 2 and 3 that are based on lithological affinities and temporal associations. Cover Sequence 2 (ca 1790-1690 Ma) includes the calc-silicate rocks of Corella Formation and the felsic volcanics of the Argylla Formation (Tewinga Group). Recent age dates have lead to a reinterpretation of the some of the cover stratigraphy. Cover Sequence 3 (1680-1610 Ma) now incorporates the Soldiers Cap Group and the new, informally named Young Australia Group (**Foster and Austin, 2008**), both of which were formerly assigned to Cover Sequence 2. The Soldiers Cap Group (including the Kuridala Formation) is the most extensive member of the Maronan Supergroup (Fig. 3). The Young Australia Group includes the Answer Slate, the calc-silicate rocks of the Staveley Formation, the Marimo Slate and Agate Downs Siltstone formerly assigned to the Mary Kathleen Group of Cover Sequence 2. The Young Australia Group is considered likely to be the lateral facies equivalent of the younger units within the Soldiers Cap Group (**Foster and Austin, 2008**).

These rock packages have been intruded by at least three main phases. The earliest intrusive suite (1750-1730 Ma) includes the Gin Creek Granite and the Jesse Granite **(Wyborn et al. 1988; Page and Sun, 1998)**. The second suite of granites intruded ca 1590-1530 Ma and includes the Maramangee Granite and the Mt Margaret Granite (**Page and Sun, 1998**). The third intrusive phase produced the most voluminous suite of granites which make up the Williams and Naraku Granites. These intrusions range in age between 1520 and 1490 Ma **(Wyborn et al. 1988; Page and Sun, 1998).**

The basement and cover sequences were deformed and metamorphosed by the Isan Orogeny of ca 1600-1500 Ma (**Blake and Stewart, 1992; Foster and Rubenach, 2006**). Up to seven deformational events in the Eastern Fold Belt have been recorded in the literature (D_1 through to D_7) **(Bell, 1983; Beardsmore et al. 1988; Bell et al. 1988; Loosveld, 1989; Nijman et al. 1992; Stewart, 1992; Mares, 1998; Laing, 1998)**. Of these deformation events four major events are described below. The earliest deformation event (D_1) in the Eastern Fold Belt was a compressional event which produced thrusts, horizontal isoclinal folding and flat lying mylonites. The second compressional event (D_2) produced the dominant upright, tight to isoclinal, north south trending folding seen in the Inlier. This event is interpreted to be synchronous with the peak of metamorphism **(Page and Bell, 1986; Oliver, 1995).** Metamorphic grade is highest in the southeast (upper amphibolite facies) with greenschist facies predominating toward the northwest **(Jacques et al. 1982)**. The third deformational phase (D_3) was a horizontal event producing shallow, dipping folding and refolding of D_2 folds. The fourth folding event (D_4) was similar in orientation to the D_2 event, being dominantly east-west horizontal shortening which produced upright north-south oriented folds and reactivated flat lying D_3 structures. Several brittle events occurred after D_4 during a "cooling down" transition from a ductile to brittle regime. These events produced the northeast and northwest trending faulting and are thought to be integral to the formation of many of the deposits in the region.

Several regional scale alteration events can be seen within the rocks of the Eastern Fold Belt. These large metasomatic events also play a fundamental part in the formation of the majority of ore deposits within the belt, by either being directly associated with carrying ore minerals or by rheologically preparing rocks for brittle fracture or ductile shearing. The first of these events is a regional Na-Ca metasomatic event that alters large volumes of rock to albite and silica. The larger of the albite alteration zones are usually concentrated next to major regional structures. The second regional alteration event consists of large scale K-Fe-Mg alteration producing K-feldspar, pyroxene, actinolite, epidote and scapolite. Both these alteration assemblages are commonly found associated with Fe-oxide copper gold deposits within the region. Mineralisation styles within the Eastern Fold Belt can be divided into four broad categories: Au dominated deposits (Tick Hill, Gilded Rose, Mt Frieda), Cu dominated deposits (Mt Elliott, Starra, Osborne, Ernest Henry, Eliose, etc.), Pb-Zn-Ag deposits (Cannington, Pegmont, Dugald River, etc.) and U deposits (Mary Kathleen).

There are several styles of Au-dominated deposit which occur in a range of lithologies and metamorphic grades. The common denominator in this group is the structural control. Tick Hill probably represents the best known Au dominated deposit in the Eastern Fold Belt and between 1991 and 1994 was one of Australia's largest Au producers. Tick Hill is a high-strain zone hosted deposit where gold is confined within laminated quartz, K-feldspar bands within the Mary Kathleen Group (now Young Australia Group) calc-silicates **(Crookes, 1993)**.

The Cu dominated group of deposits can be divided into two broad categories: the Fe-oxide Cu-Au deposits and the Cu-Au ± Pb-Zn-Ag deposits. The Fe-oxide Cu-Au deposits of the Eastern Fold Belt come in a broad range of categories, from breccia-hosted deposits like the Ernest Henry deposit through to shear hosted deposits such as Eloise. All deposits contain a distinctive structural control whether it be a large zone of brecciation or a discrete shear zone formed via competency variations on host rock lithologies. The Cu-Au ± Pb-Zn-Ag deposits (for example Mt Dore, Kuridala) are characterised by being hosted within brecciated carbonaceous black shale and do not have a major Fe-oxide component. The Mt Dore example consists of a sequence of intensely brecciated black shale bound on either side by a hanging-wall granite (thrust contact) and a foot-wall of silicified shale. Mineralisation occurs as chalcocite-native copper-chrysocolla-cuprite tenorite in the oxide zone and chalcopyrite-sphalerite-galena-molybdenite in the sulphide zone.

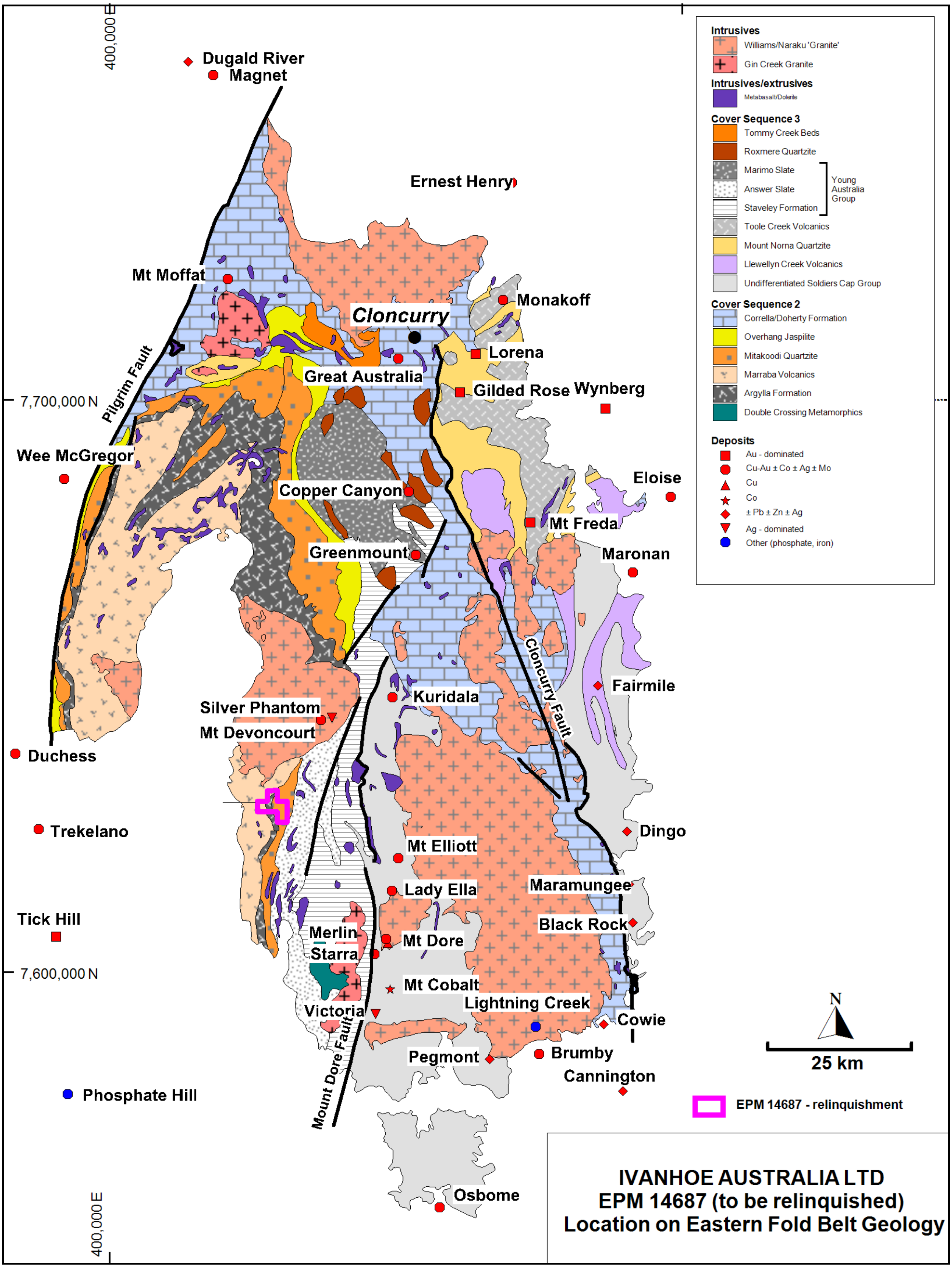

Fig. 3: EPM 14687 Relinquished sub-blocks and regional geology

Pb-Zn-Ag deposits in the Eastern Fold Belt generally lie within the higher metamorphic grade rocks of the Soldiers Cap Group. Of these deposits, Cannington is the most notable (45Mt @ 11.9% Pb, 4.8% Zn and 520g/t Ag) **(Roche, 1994)**. Cannington is hosted on the contact between a barren amphibolite and migmatite and gneiss. In some parts of the deposit a rough zonation from higher Zn at the margin of the amphibolite to Pb and Ag distal exists **(Roche, 1994)**. Mineralisation consists of sphalerite and galena with some native silver.

Mary Kathleen represents the only uranium deposit to be mined within the Mt Isa Inlier. Hosted within the contact aureole of the Burstall Granite, mineralisation consists of uraninite as inclusions within allanite. Dating of uraninite has shown that mineralisation is younger than the Burstall Granite **(Page, 1983)** and it has been suggested that the skarn host rocks represent a chemical trap for fluids generated during regional metasomatism **(Oliver, 1995)**.

4.2 Prospect Geology

The rocks of EPM 14687 consist of Proterozoic Cover Sequences 2 and 3. Cover Sequence 2 rocks consist of the Mitakoodi Quartzite, the Marraba Volcanics and the Argylla Formation. The Mitakoodi Quartzite is a ~3 km thick sequence of feldspathic quartzite and sandstones. The Marraba Volcanics is represented by a ~3.5 km thick unit of metabasalt, metasiltstone, feldspathic and calcareous sandstones. The Argylla Formation is represented by felsic volcanics, metavolcanics and quartzite. Overlying the Cover Sequence 2 rocks are the Cover Sequence 3 rocks of the Answer Slate comprising an ~0.5 km thick sequence of cherty and slaty metasiltstone, phyllite and quartzite intruded by numerous dolerite dykes.

5 WORK DONE

Prior to the grant of EPM 14687, the tenement was included in an airborne magnetic and radiometric survey flown for MIM in 1991. The first vertical derivative of the magnetic data reduced to the pole is shown in Fig. 4, and the thorium data in Fig. 5.

No physical work has been completed within the relinquished sub-blocks of EPM 14687. Desktop studies involving reviews of historical data and geophysics have been conducted over the whole of EPM 14687. The highest priority targets identified by these studies have been in different sub-blocks of EPM 14687 to those that have been relinquished, and work within the tenement has focussed on these target areas.

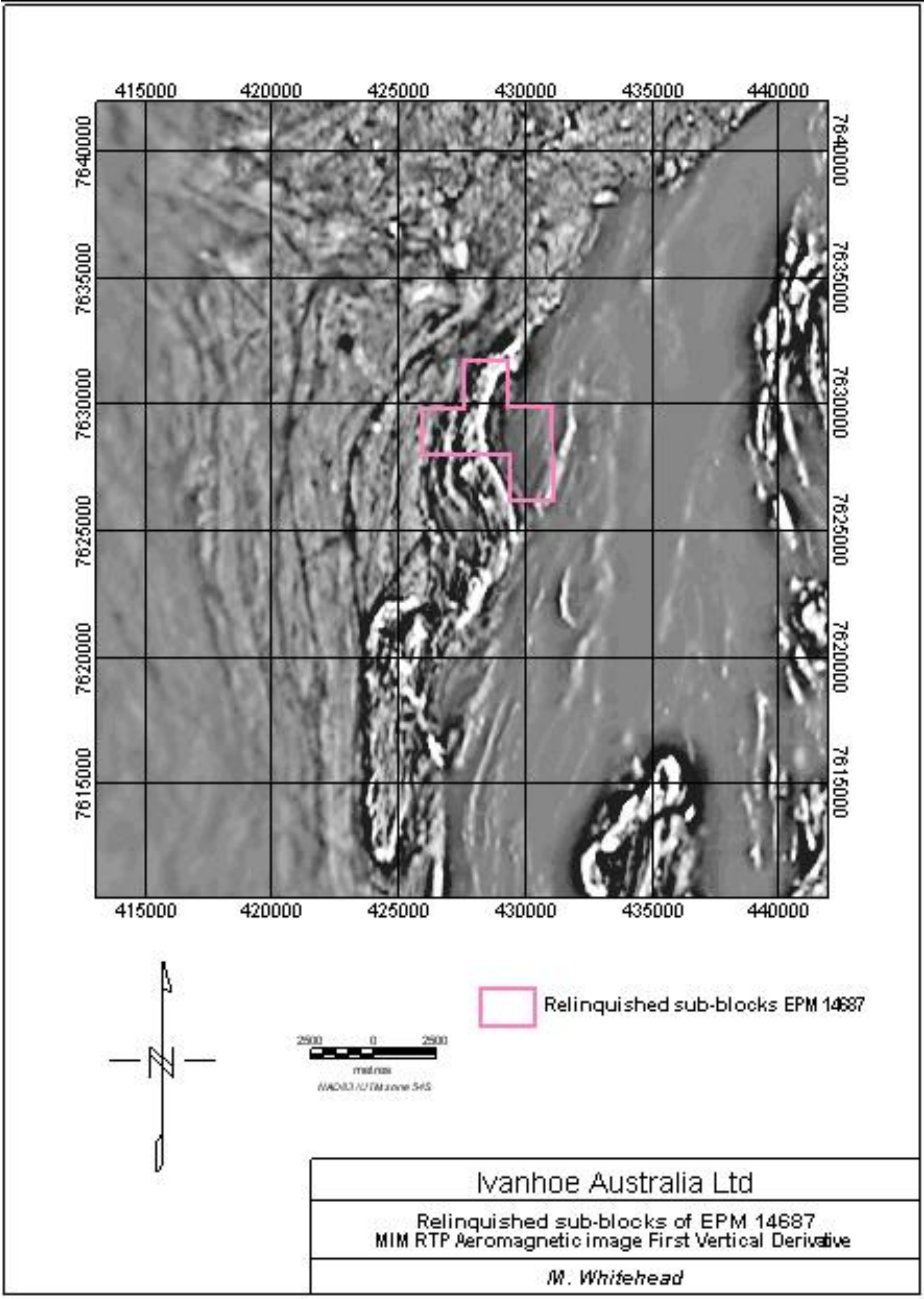

Fig. 4: Relinquished sub-blocks of EPM 14687 MIM RTP aeromagnetic image first vertical derivative

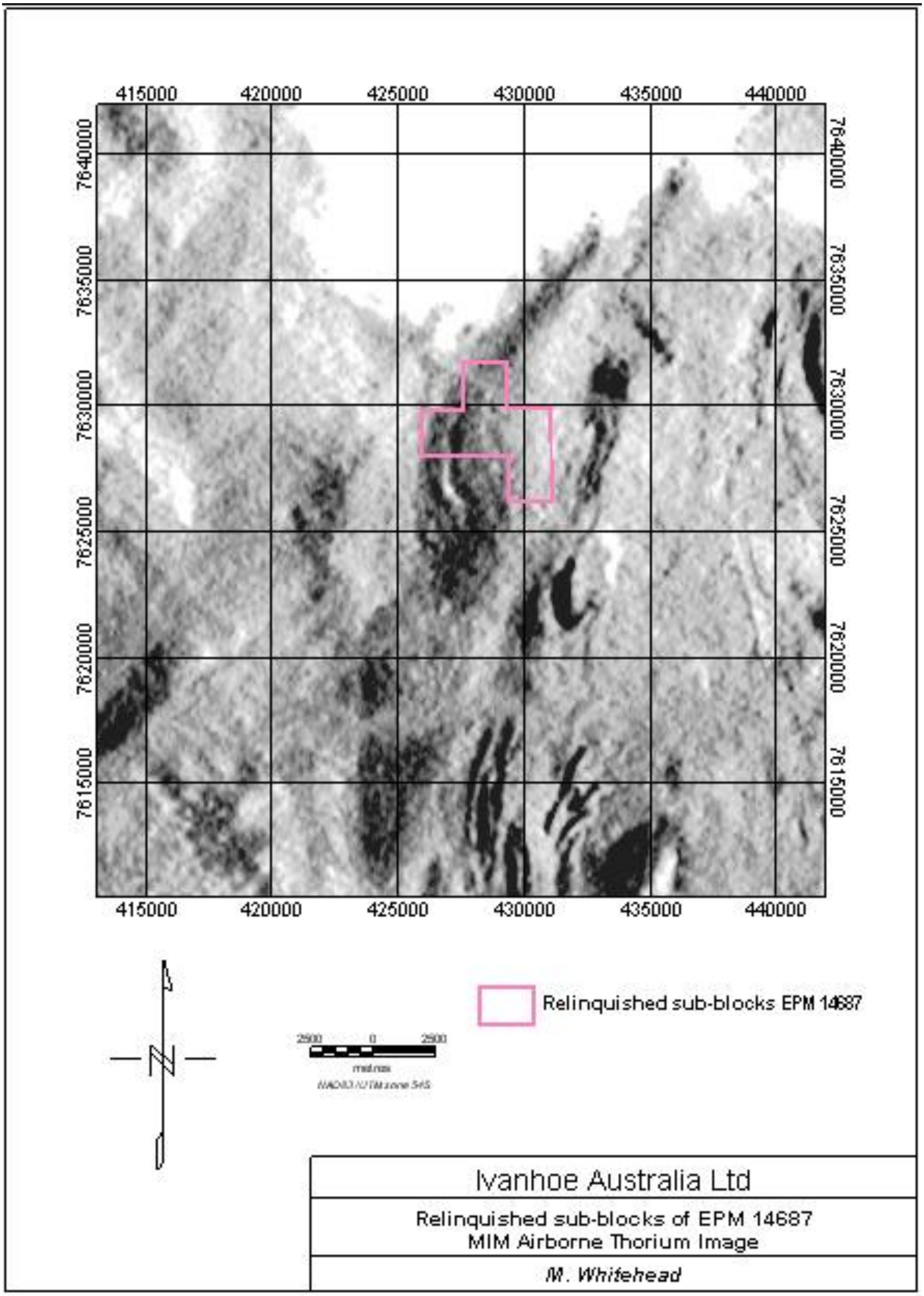

Fig. 5**: Relinquished sub-blocks of EPM 14687 on MIM Airborne Thorium image**

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