# pmd*CRC Mt ISA Eastern Succession Program

# STRUCTURE AND METAMORPHIC EVOLUTION OF KEY AREAS IN THE EASTERN FOLD BELT, MOUNT ISA INLIER


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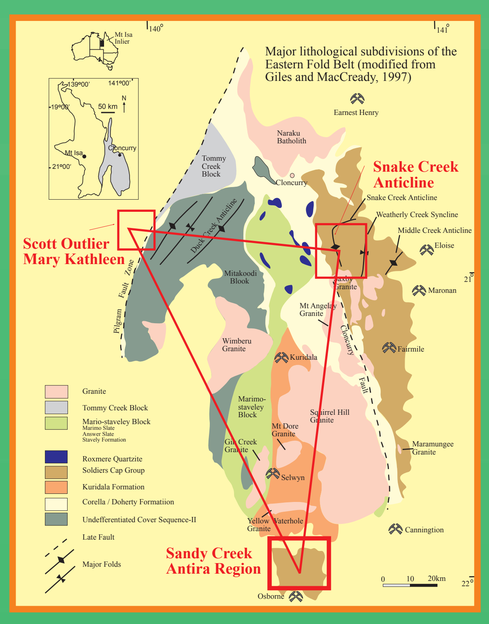



**The focus of this PhD project is to understand the structural and metamorphic evolution of key areas in the Eastern Fold Belt (EFB), Mount Isa Inlier:**

1. **Eastern part of the Eastern Fold Belt, Snake Creek Anticline,**
2. **Western part of the Eastern Fold Belt, Scott Outlier, Mary Kathleen Fold Belt,**
3. **Southern part of the Eastern Fold Belt, Sandy Creek - Anitra Region (this poster),**

**The above key areas form a triangle across the EFB. The essence of this research is to study each key area in detail from microscopic to macroscopic scale and to integrate the results into the regional geodynamics.**

***Future work will include microprobe monazite dating to constrain the multiple deformation/metamorphic events***

## KEY QUESTIONS

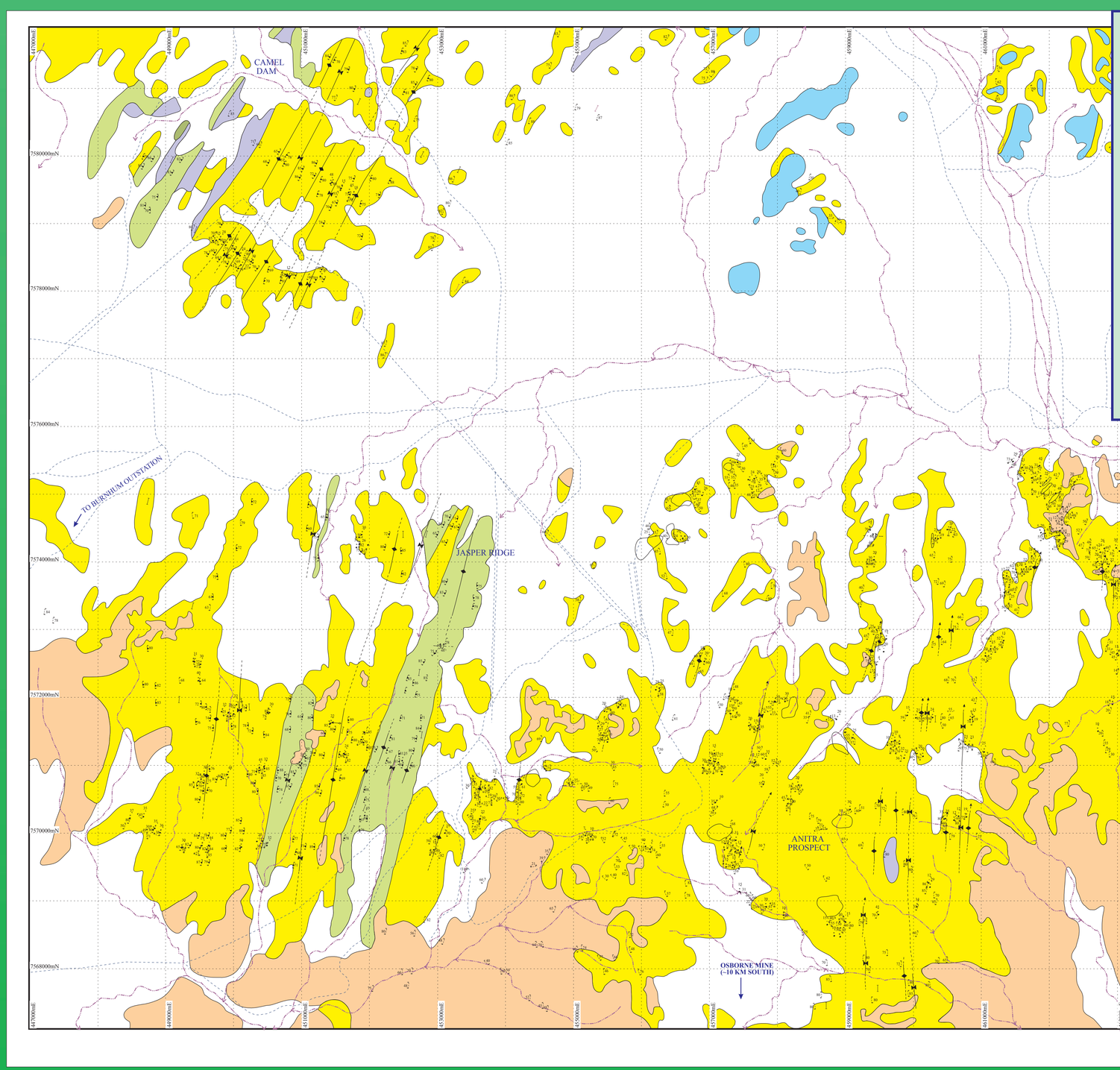
**Are the N-S directed $D_1$ related structures localized or present over the whole Eastern Fold Belt?**

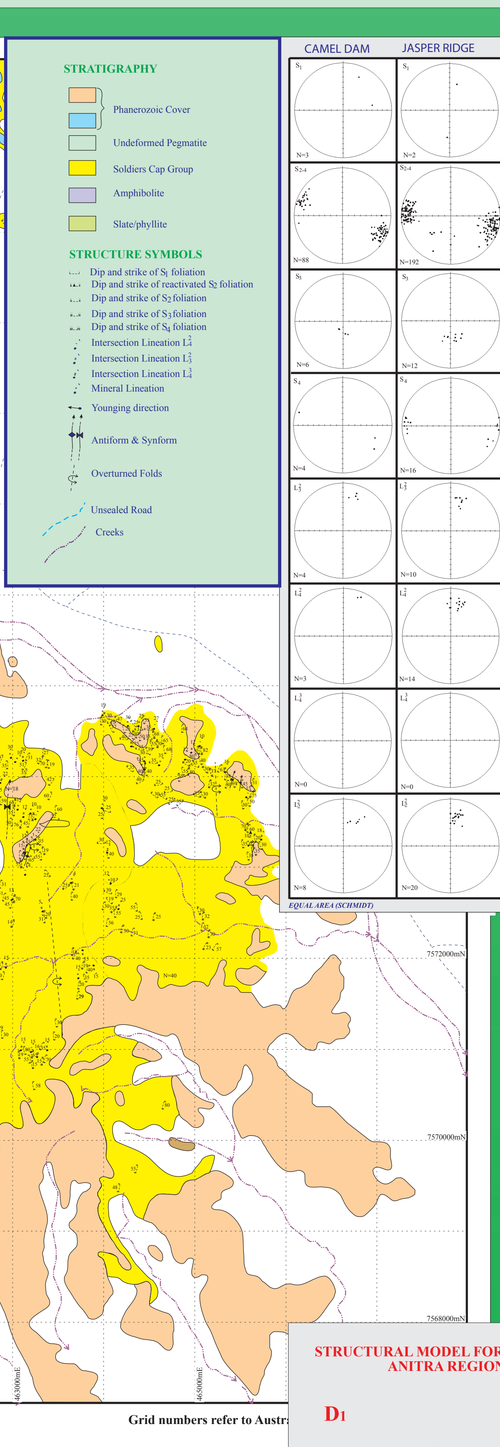
**Are $D_1$ and $D_2$ west-directed thin-skinned and thick-skinned deformation or N-S and later E-W compression?**

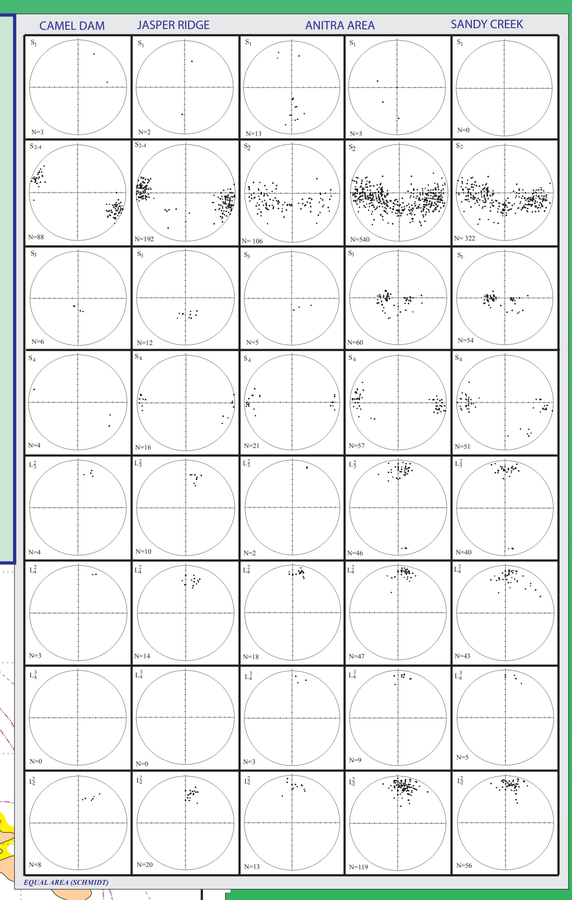
**Is the $D_2$ of MacCready et al., (1998) of the EFB = $D_2$ of WFB (Bell, 1983)?**

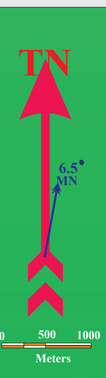
**Are post $D_2$ shallow dipping structures significant in the Mt Isa Inlier?**

**TO ANSWER THESE QUESTIONS, TIGHT CONSTRAINTS ARE REQUIRED FROM MACRO TO MICRO SCALE STRUCTURAL DEVELOPMENT, GEOCHRONOLOGY AND METAMORPHIC EVOLUTION OF THE EASTERN FOLD BELT**



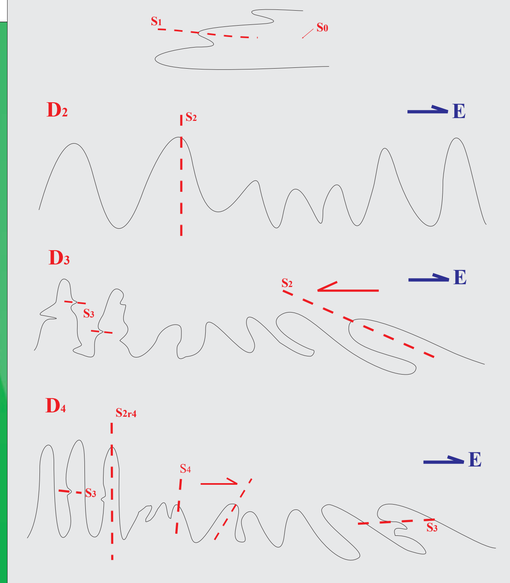




Grid numbers refer to Austr

## STRUCTURAL MODEL FOR THE EVOLUTION OF SANDY CREEK ANITRA REGION, OSBORNE-SELWYN BELT

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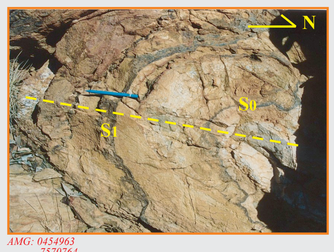

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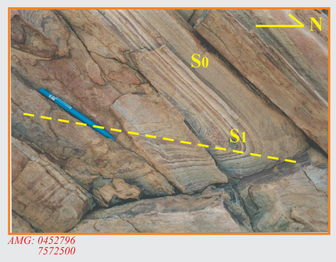

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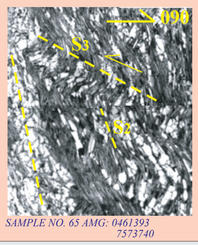

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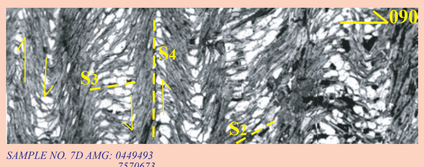

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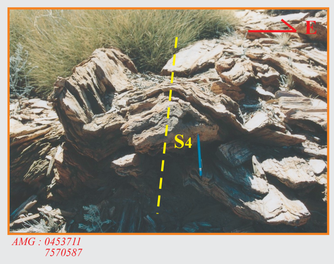
## MICROPHOTOGRAPHS



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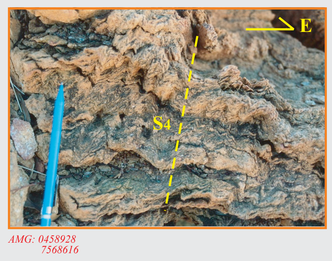

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predictive mineral discovery

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