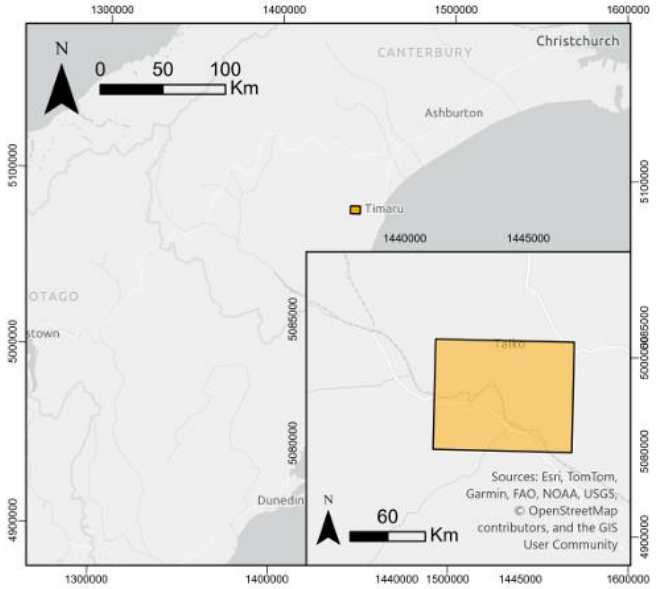
Acknowledgements: Dr Marco Brenna, Peter & Jane Evans, Sara Rowling, Mark Dale, Ray Marx, Dr Sophie Briggs, Alicia McKean, family & friends

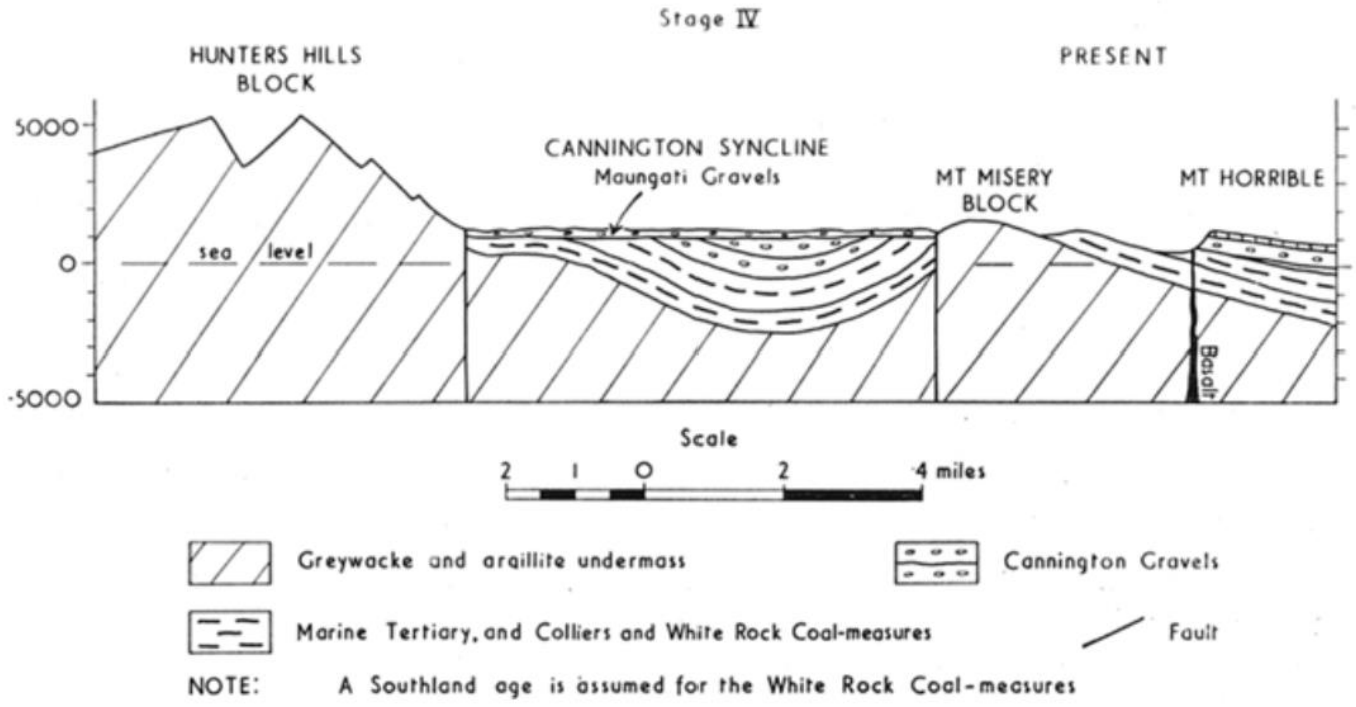
Exploring Mount Horrible

Ashleigh Prichard – Student at University of Otago
Supervisor: Dr Marco Brenna

Background/Location

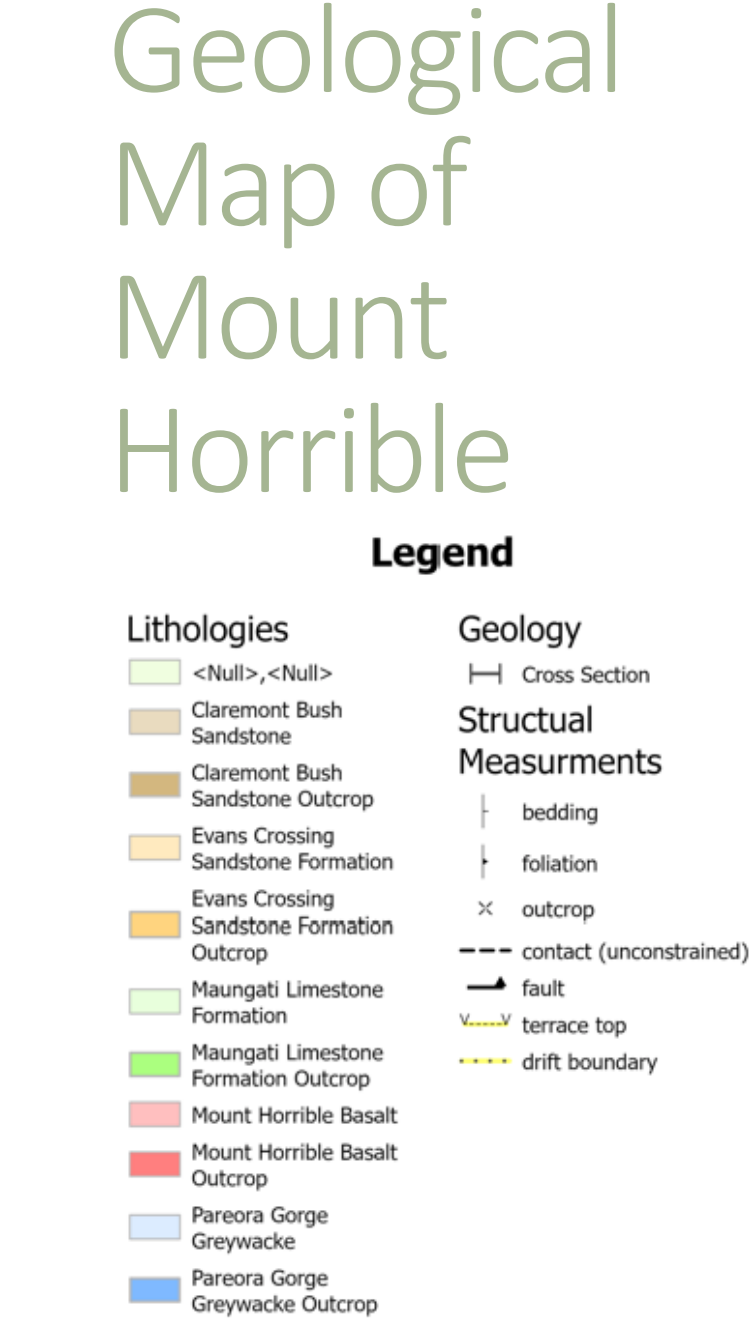
- Thick marine Tertiary sediments
- Folded into anticlines and synclines (NE-SW)
- Shaped by Neogene tectonics

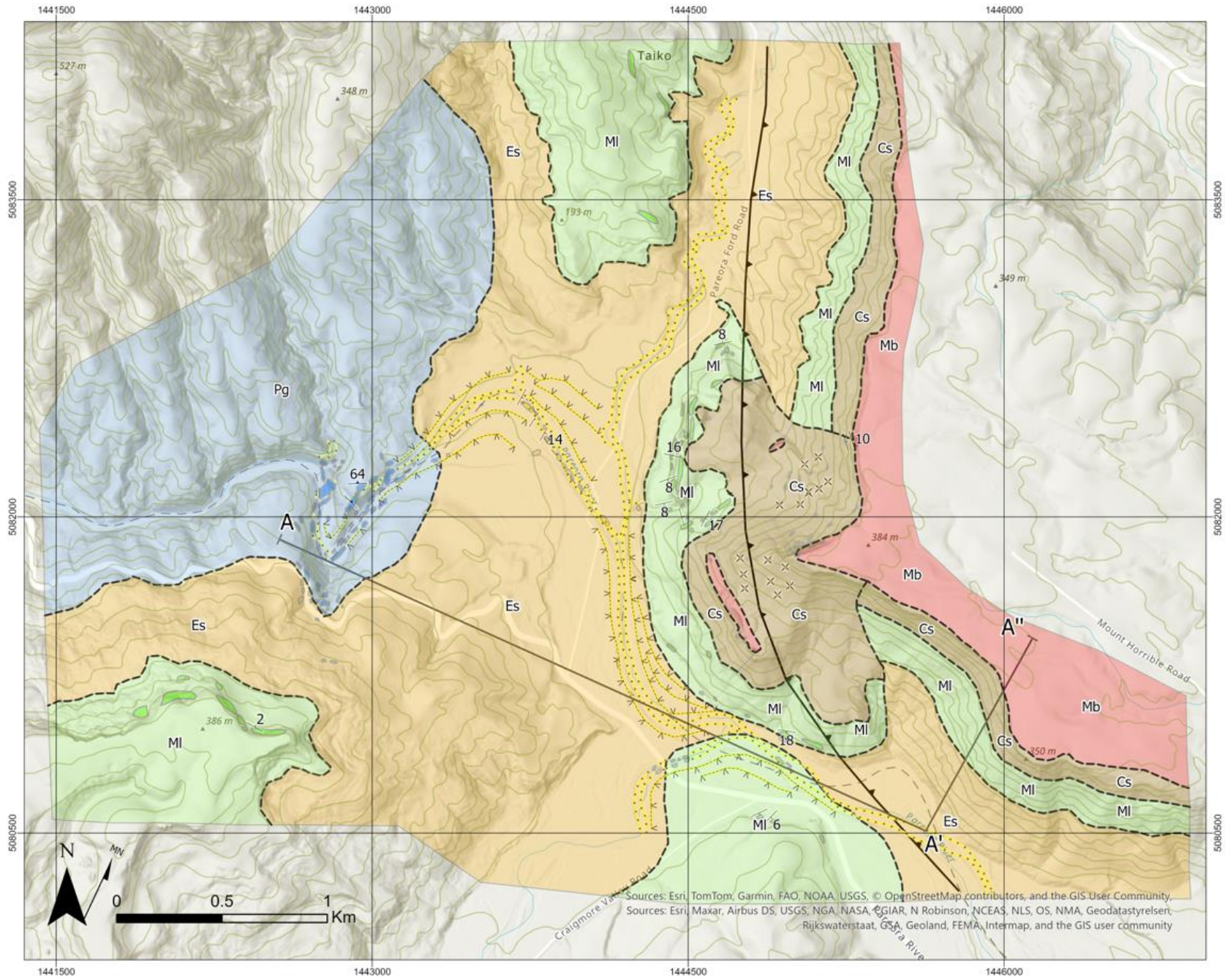




(Langdale & Stern, 1998)

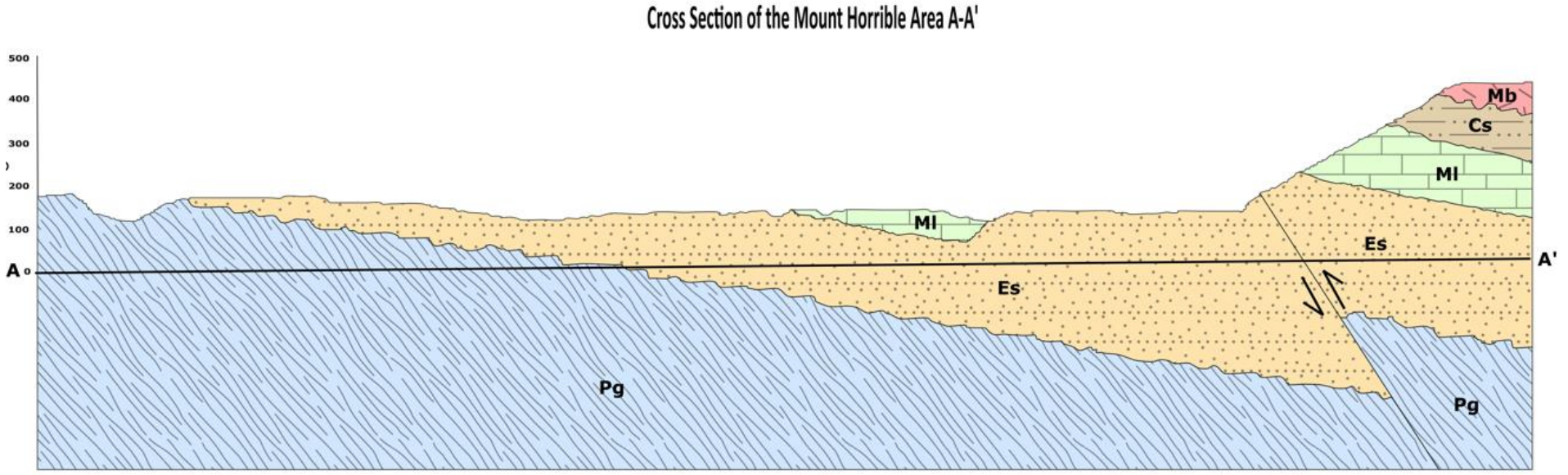
Geological Map of Mount Horrible





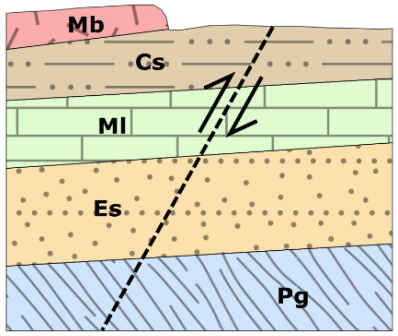
Why a fault?

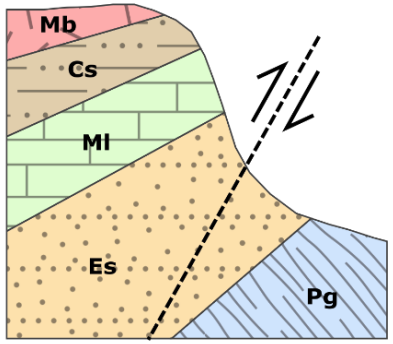
- Offset in limestone formation between river (in situ) and slopes of Mount Horrible
- Limestone on slopes represents the location where formation is displaced from expected position prior to slump

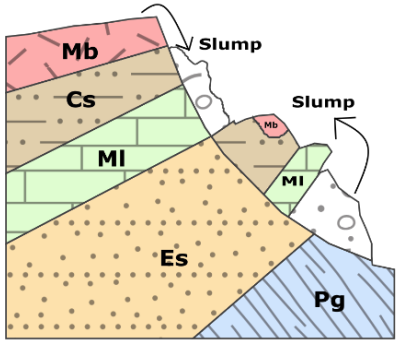


Why a slump?

- Strike/dip changes within in situ limestone and non-in situ layers
- Steep head scarp and hummocky terrain







(not to scale)

Conclusions

Analysing lithological units under the microscope to assist in interpretations of geological history

Currently in the process of making my final conclusions

References

Langdale, S., & Stern, T. A. (1998). Late Tertiary deformation in Cannington Basin, South Canterbury, New Zealand: Evidence from seismic and gravity data. *New Zealand Journal of Geology and Geophysics*, *41*(3), 247–257. https://doi.org/10.1080/00288306.1998.9514808