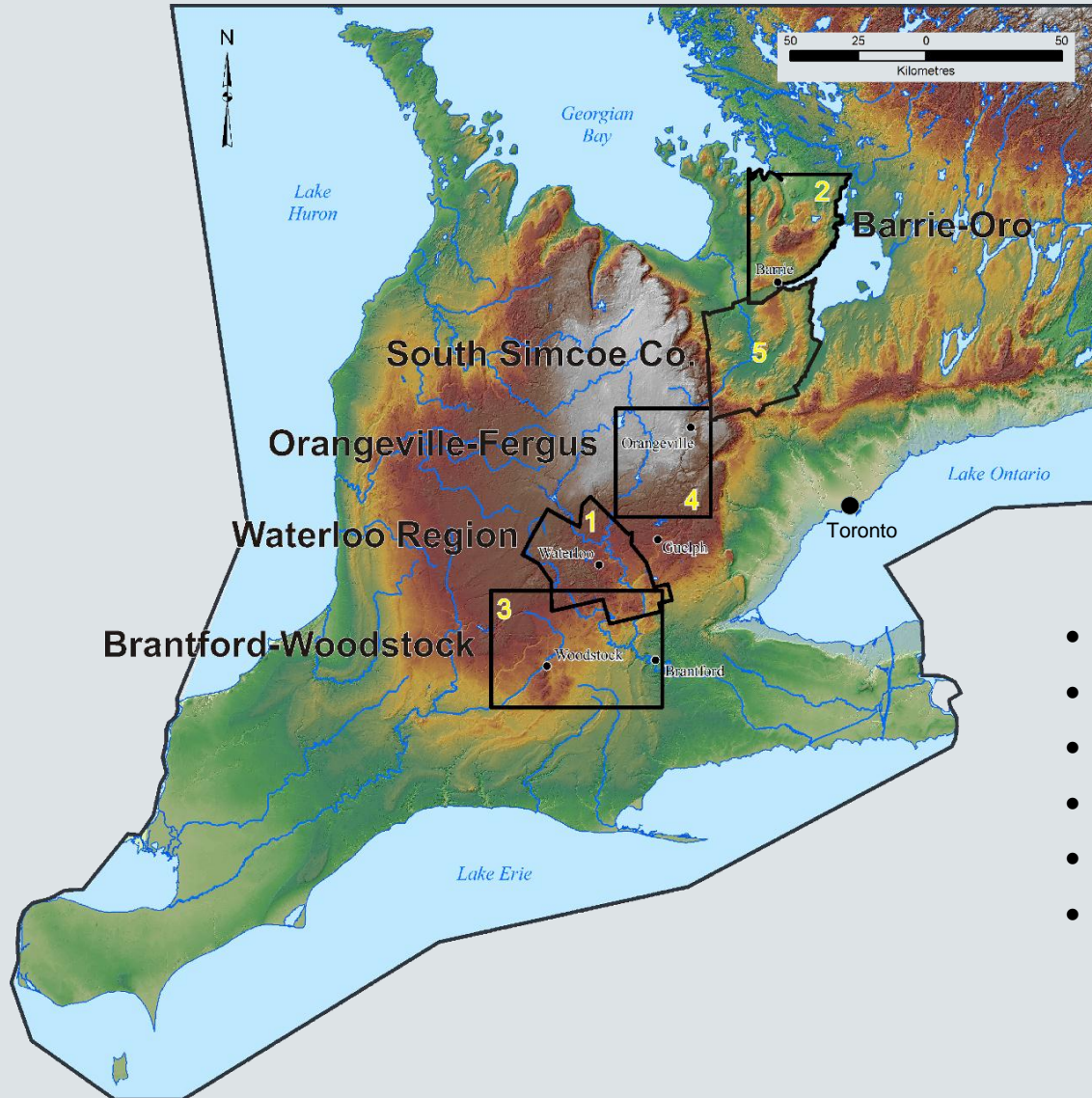


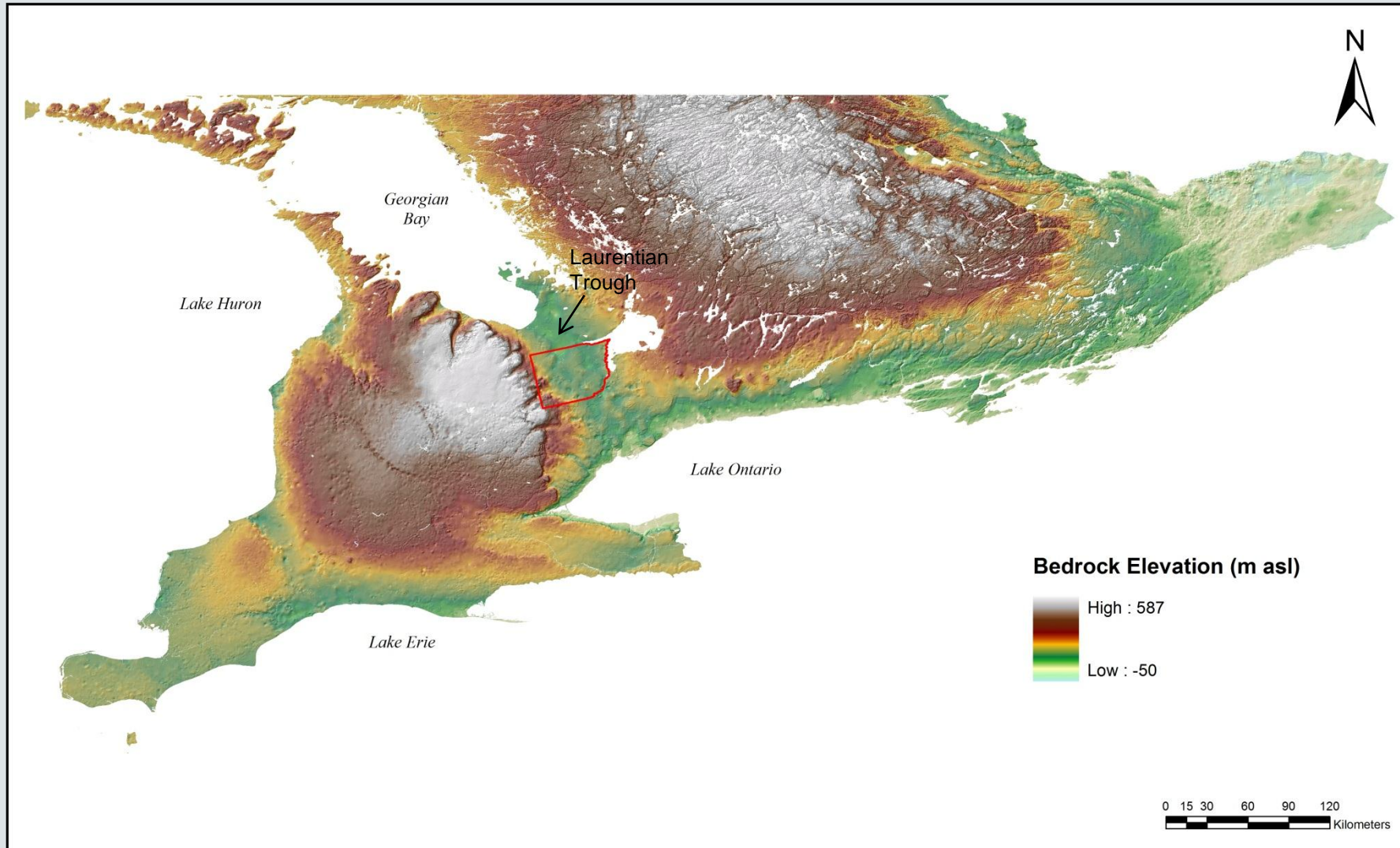
An Update on 3-Dimensional Mapping of Quaternary Deposits in South Simcoe County, Central Ontario.

A.F. Bajc, D.R.B. Rainsford and
R.P.M. Mulligan

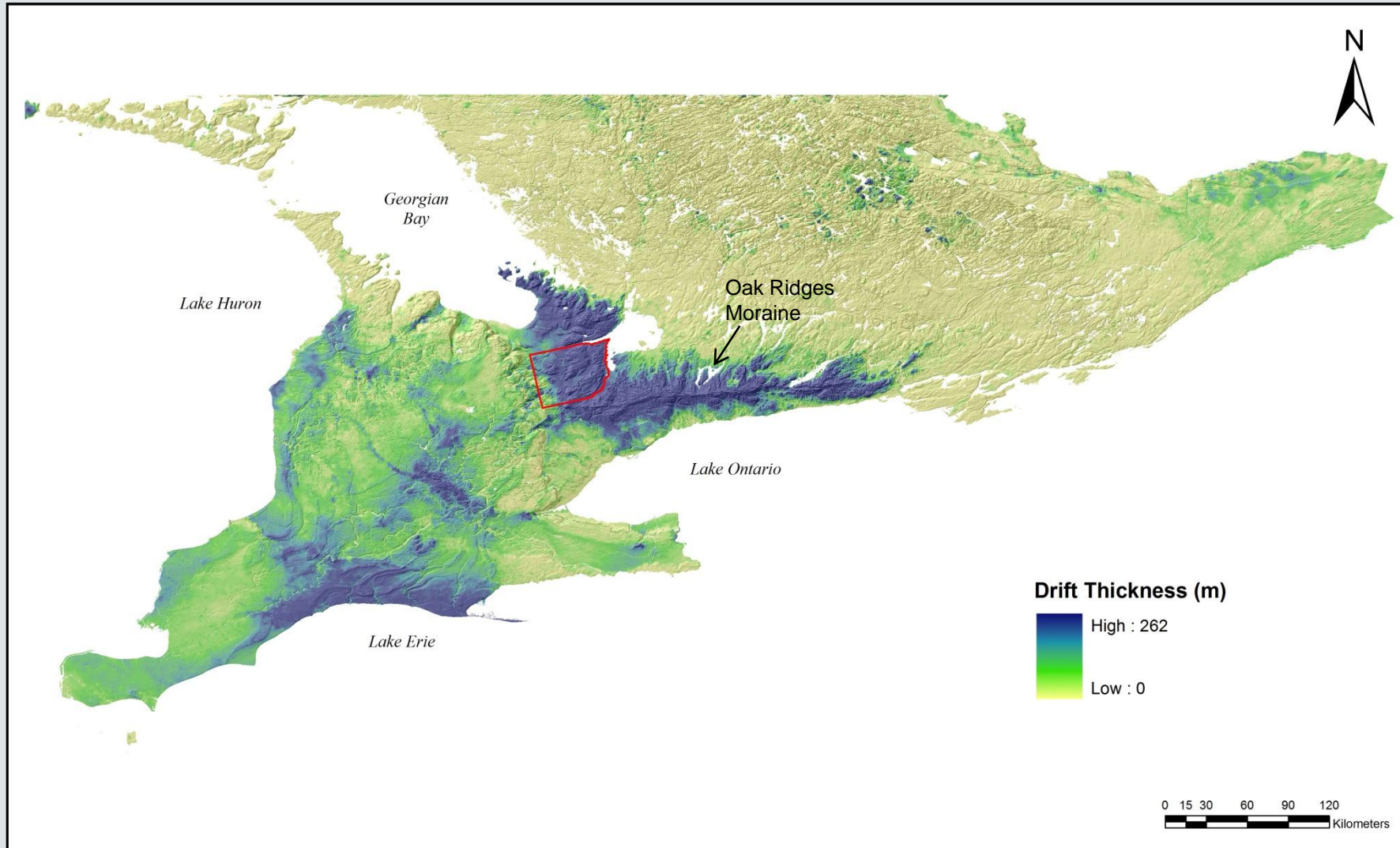


- Introduction
- Geologic Setting
- Gravity Survey
- Subsurface Stratigraphy
- TDEM Survey
- Next Steps

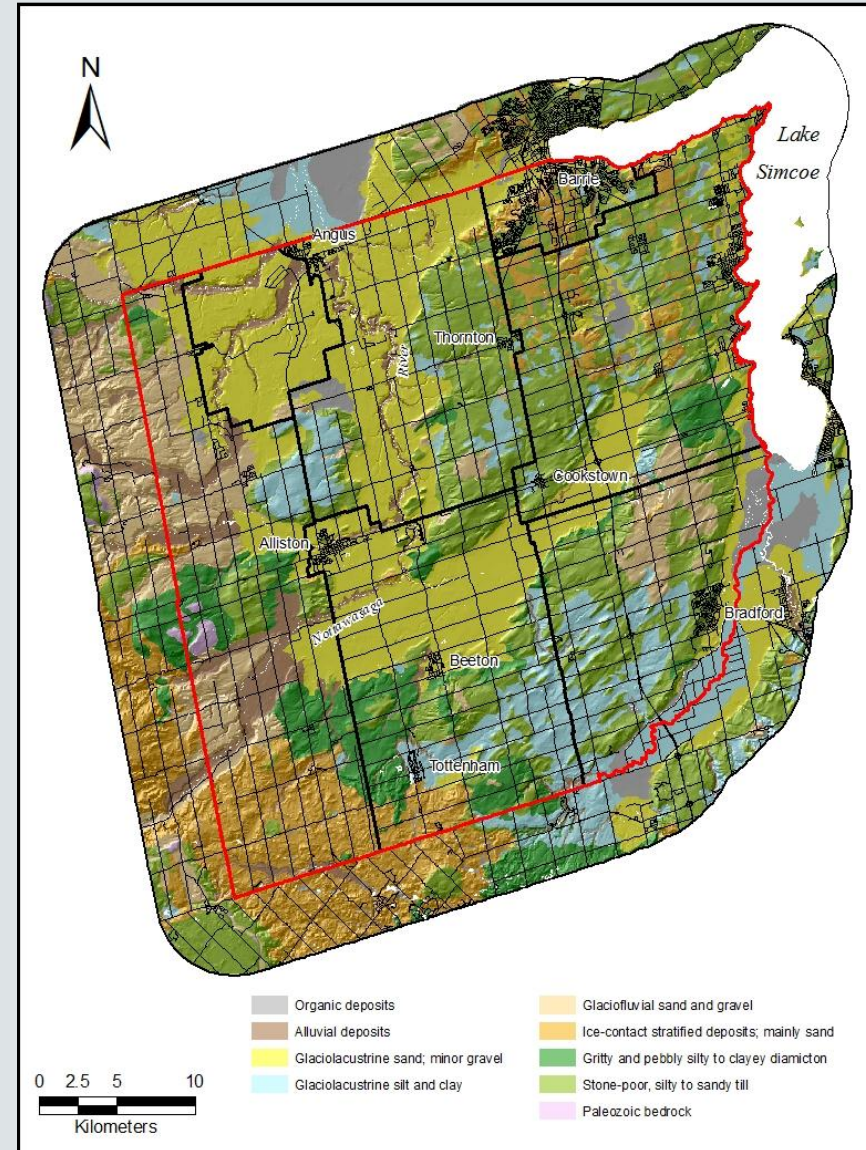
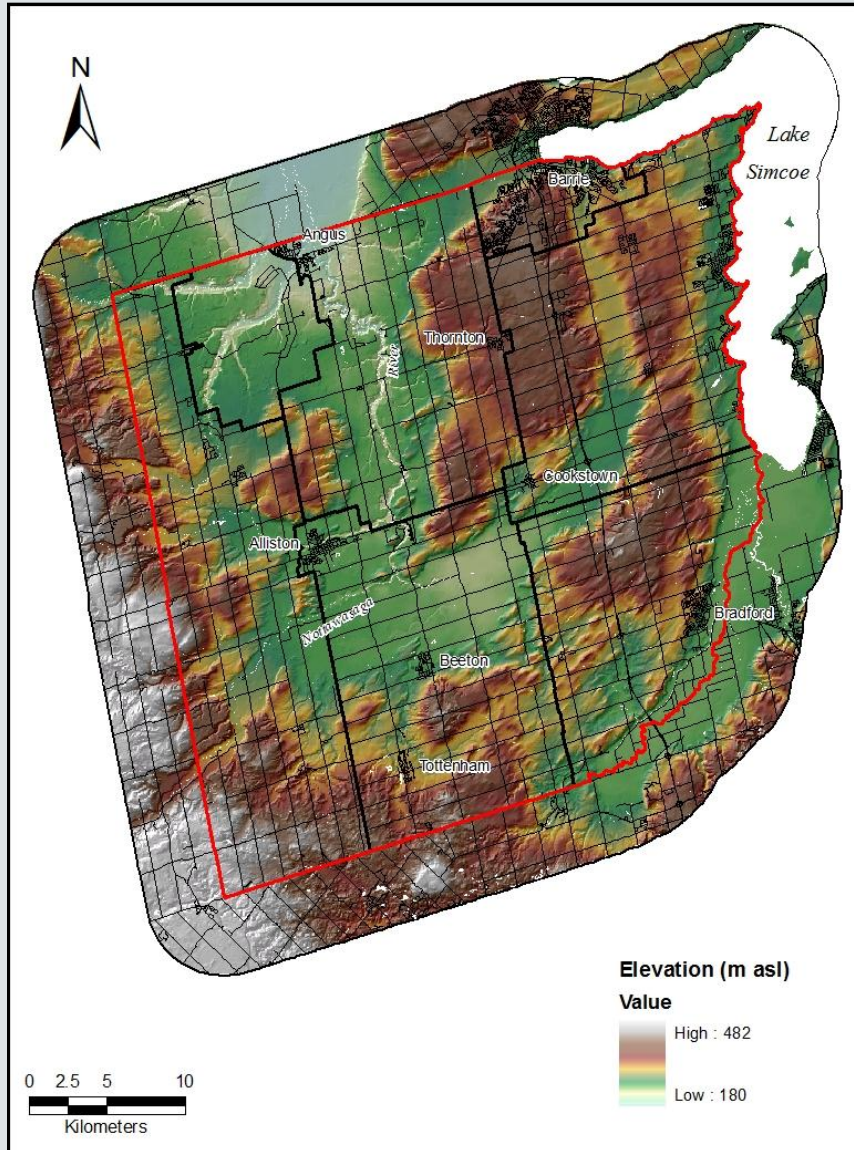
Bedrock Topography

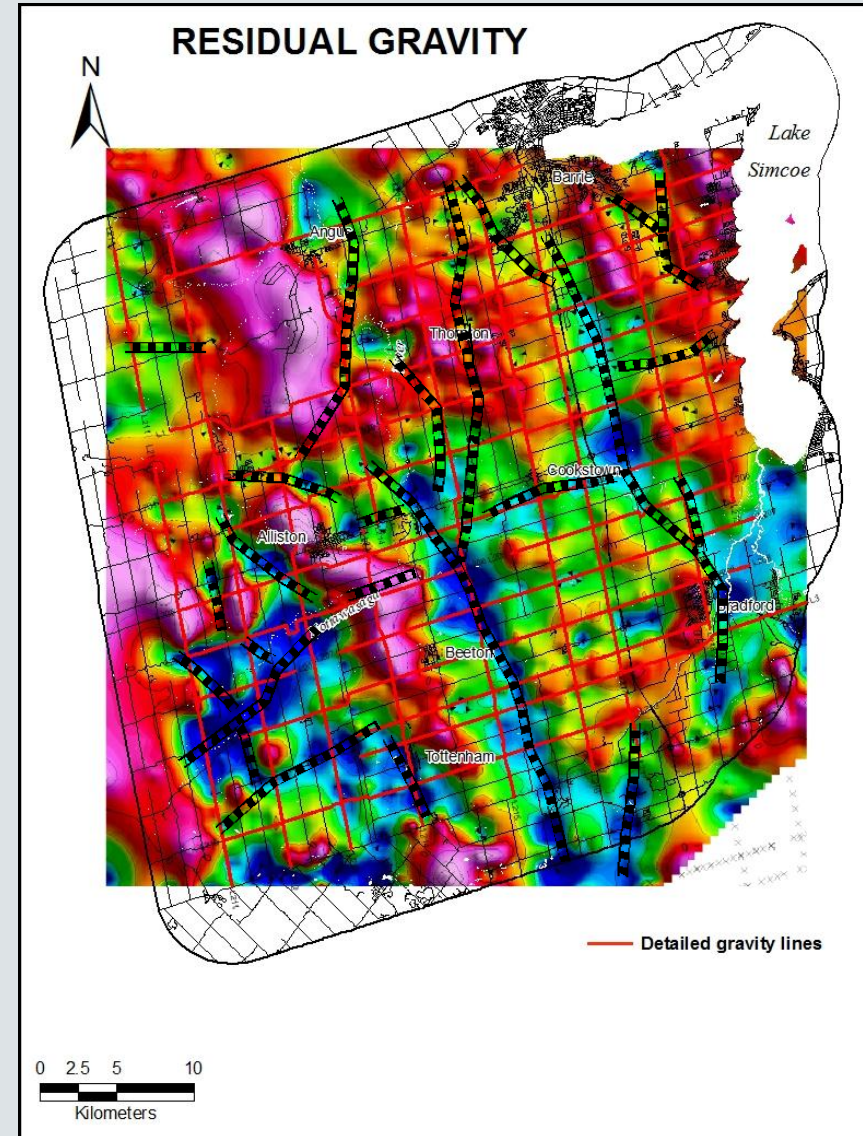
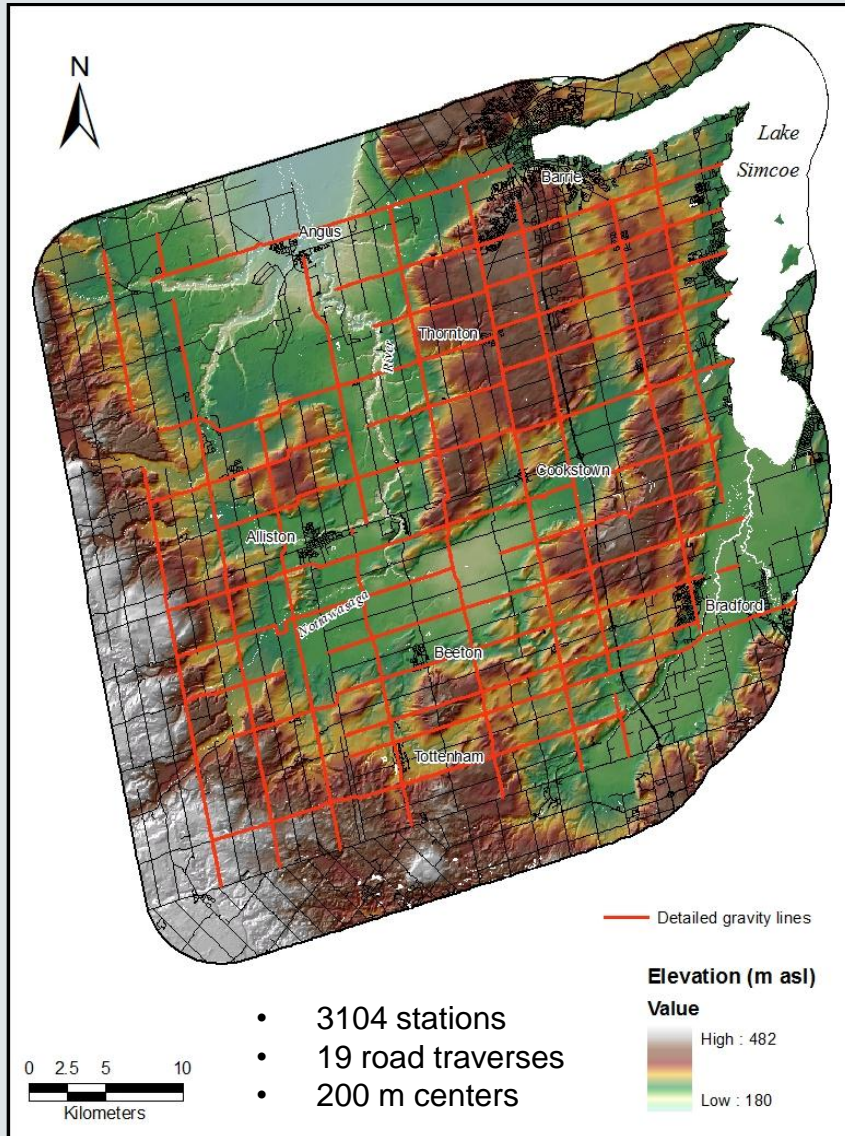


Drift Thickness



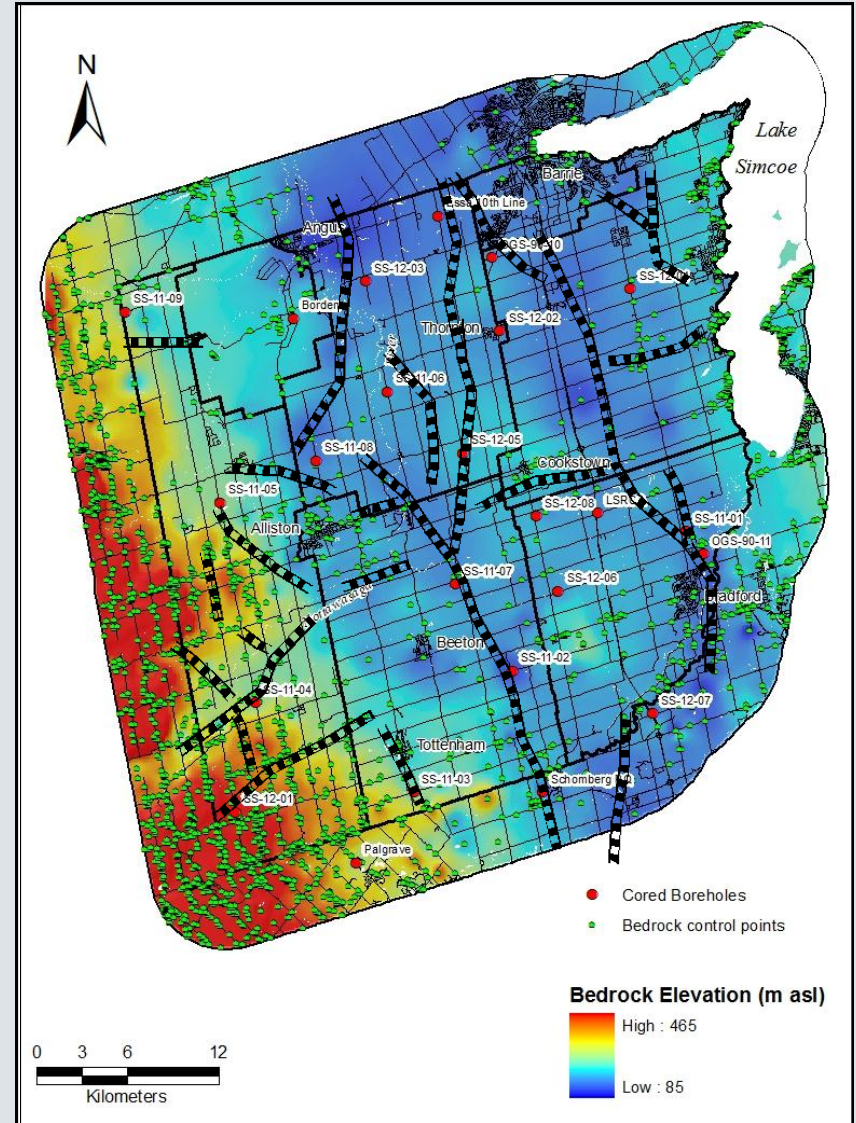
Physiography and Surficial Geology

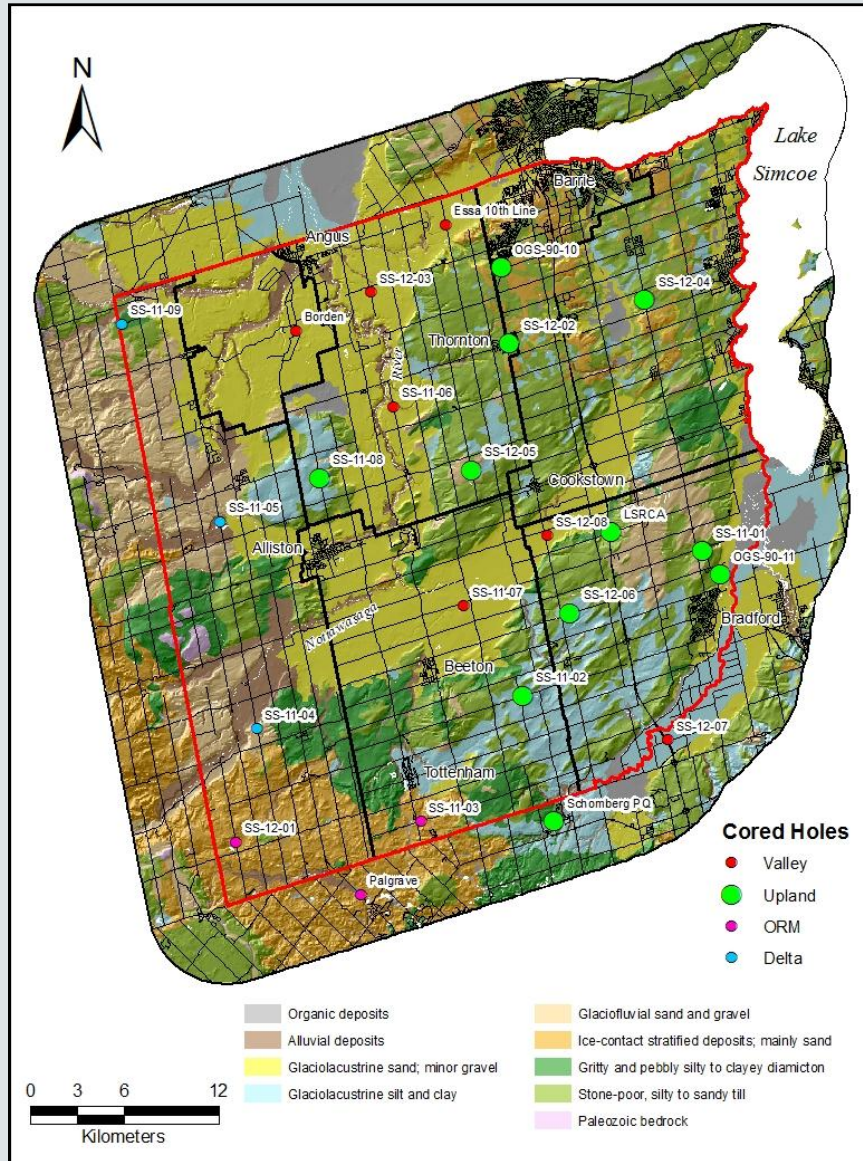


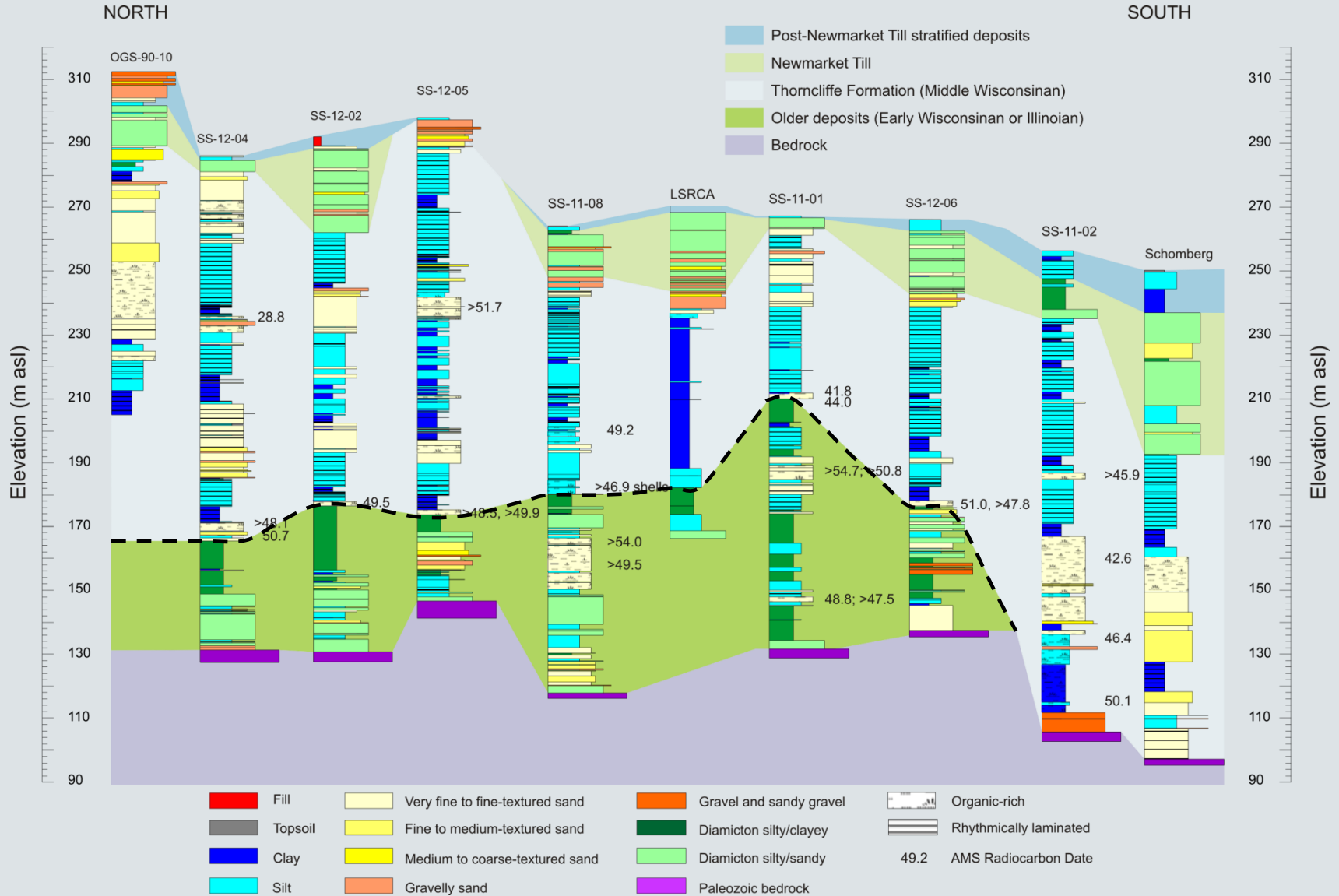




- 24 cored boreholes
- 17 cored in 2011/12
- Up to 161 m depth



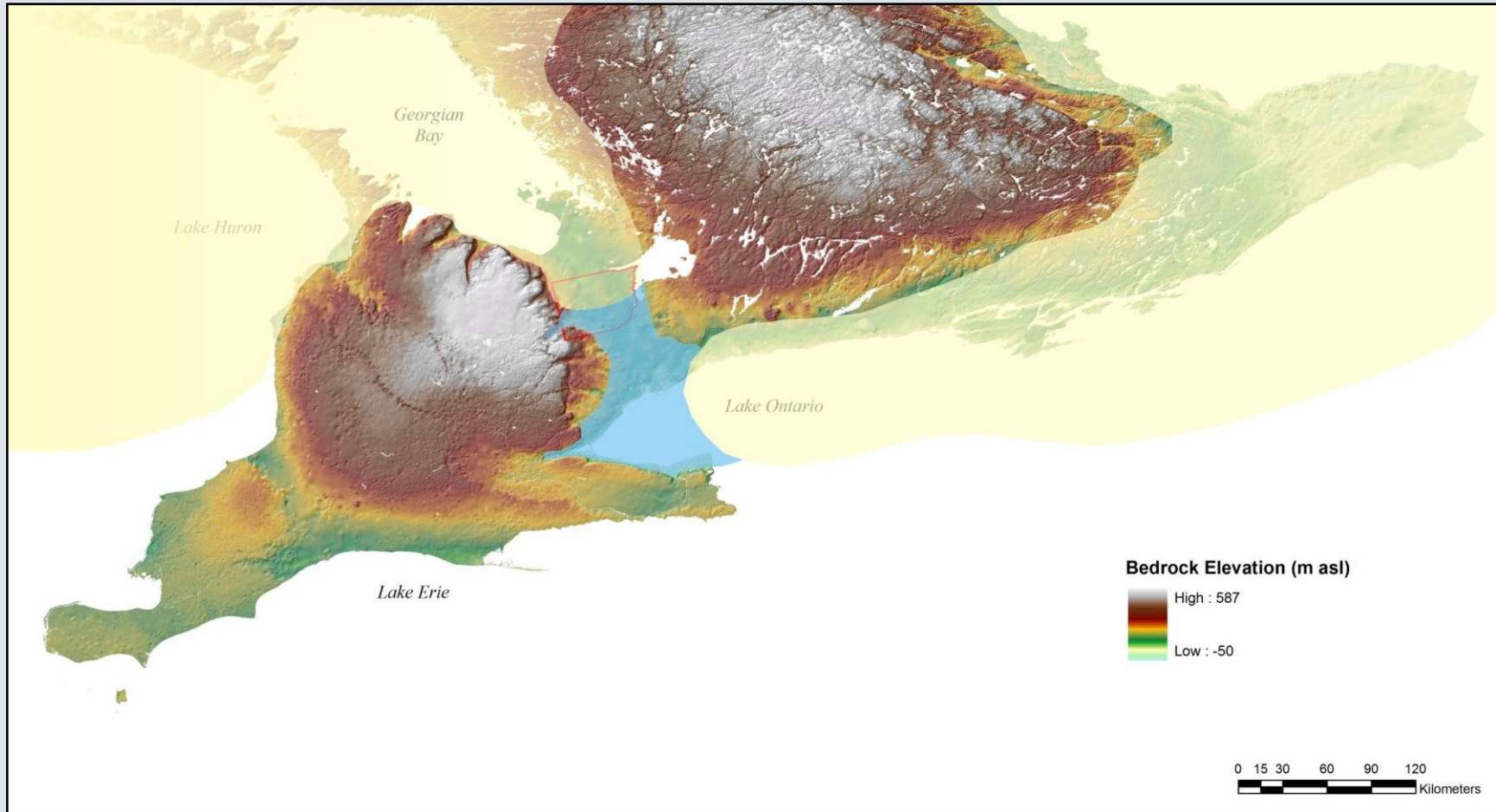




Older Tills and Glaciolacustrine Deposits



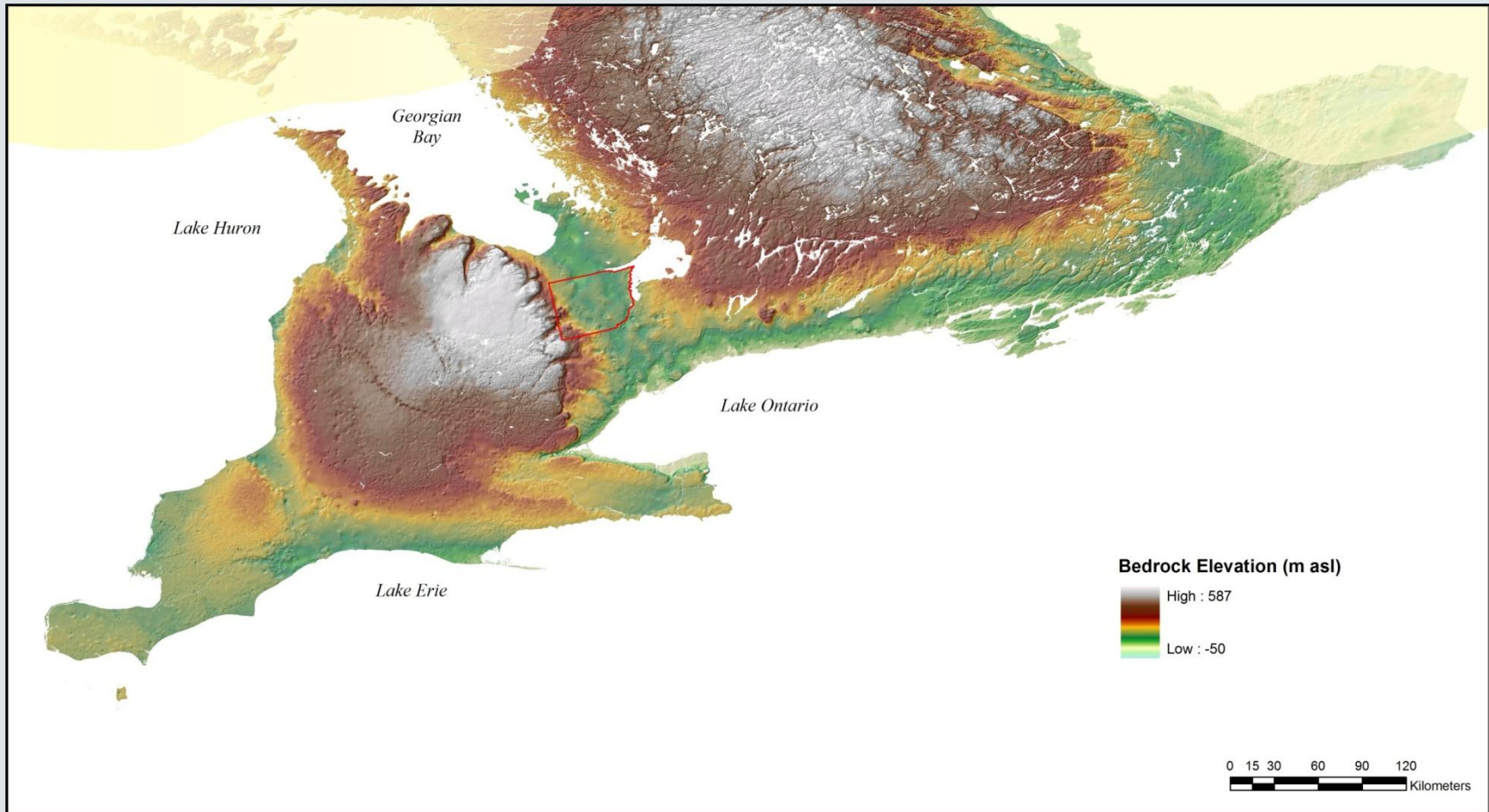
Early Wisconsinan Ice Advance



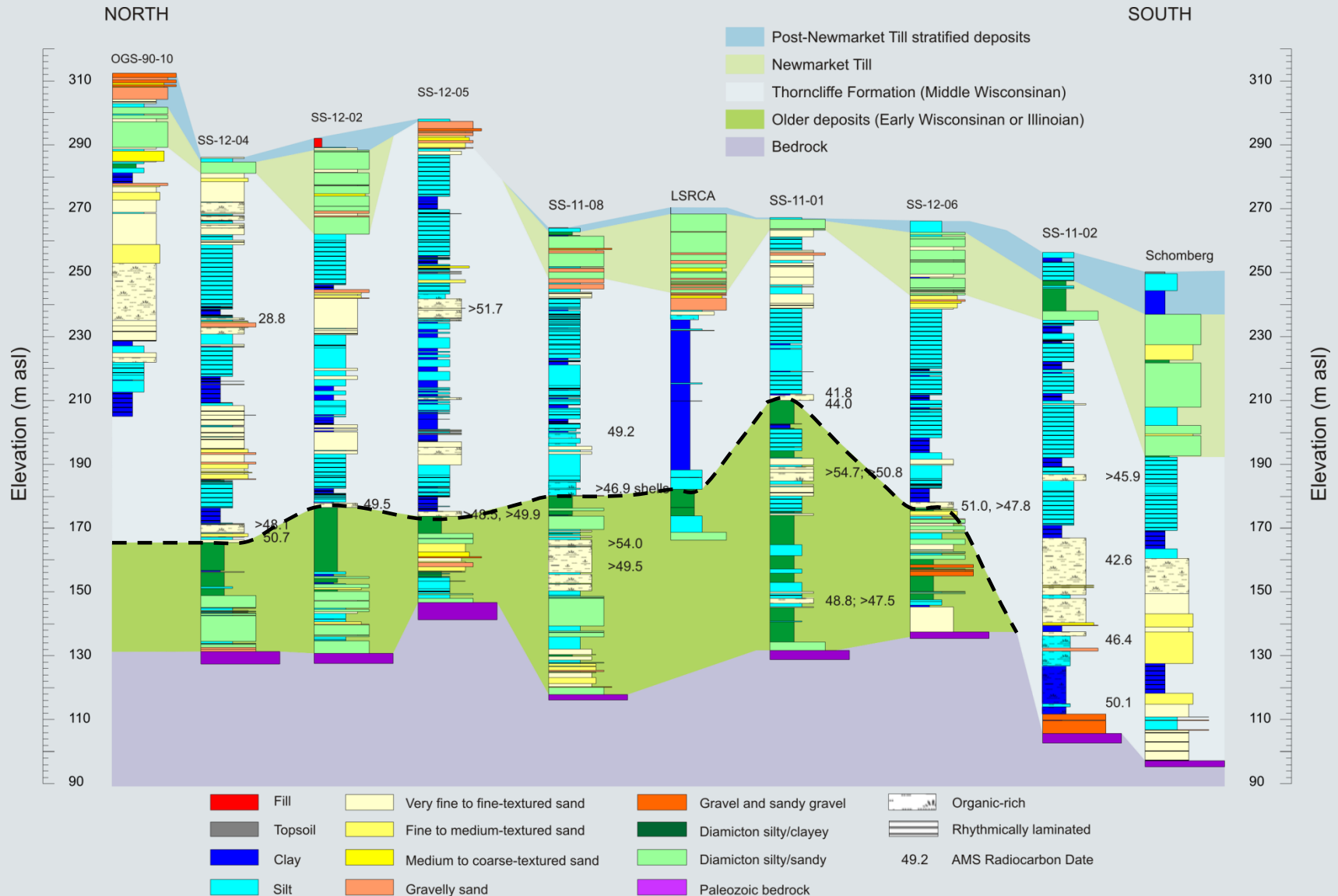
Middle Wisconsinan Non-Glacial Deposits



Middle Wisconsinan Ice Retreat



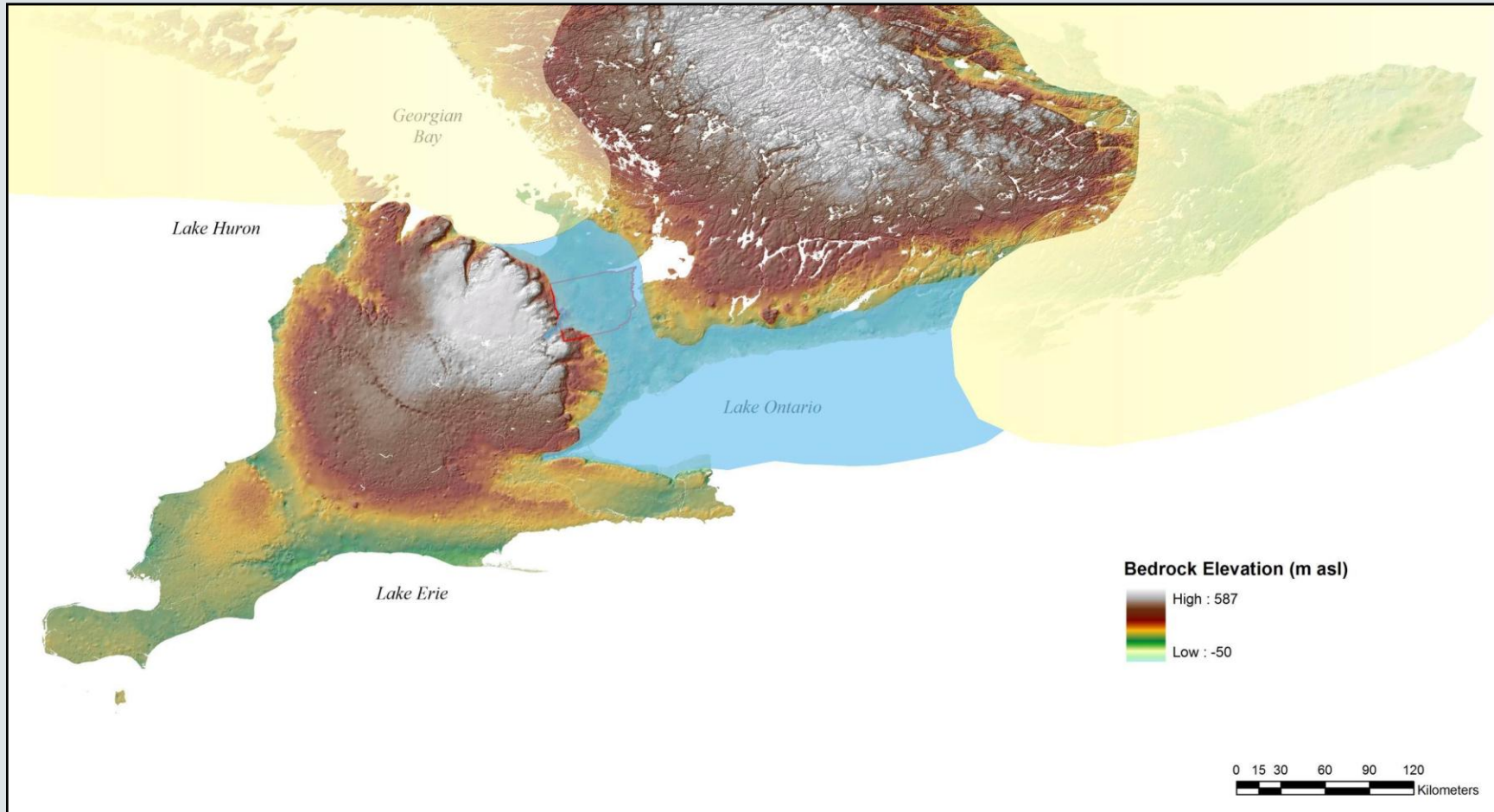
Mid-Late Wisconsinan Glaciolacustrine Deposits



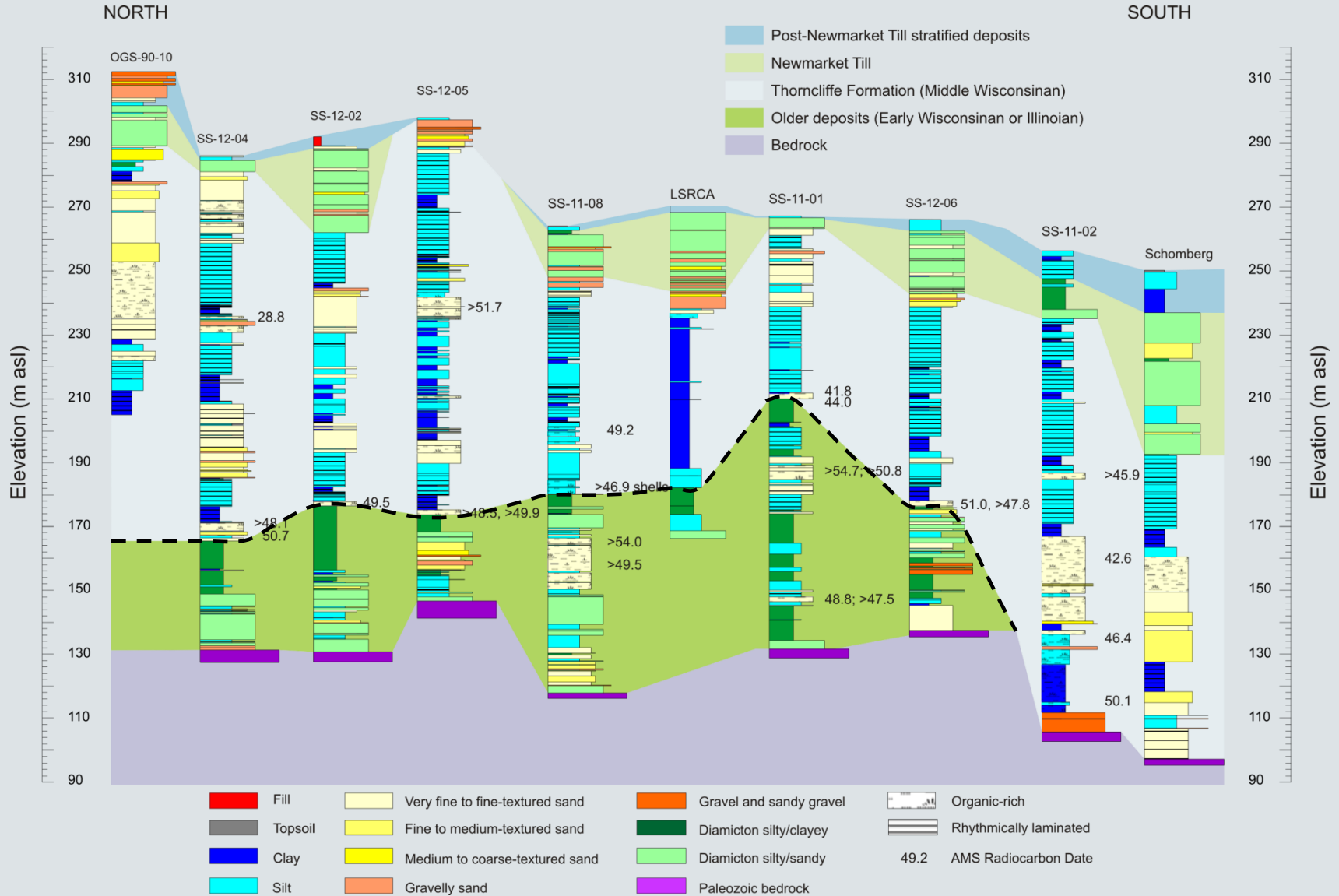
Mid-Late Wisconsinan Glaciolacustrine Deposits



Mid-Late Wisconsinan Ice Advance



Late Wisconsinan Newmarket Till



Late Wisconsinan Newmarket Till

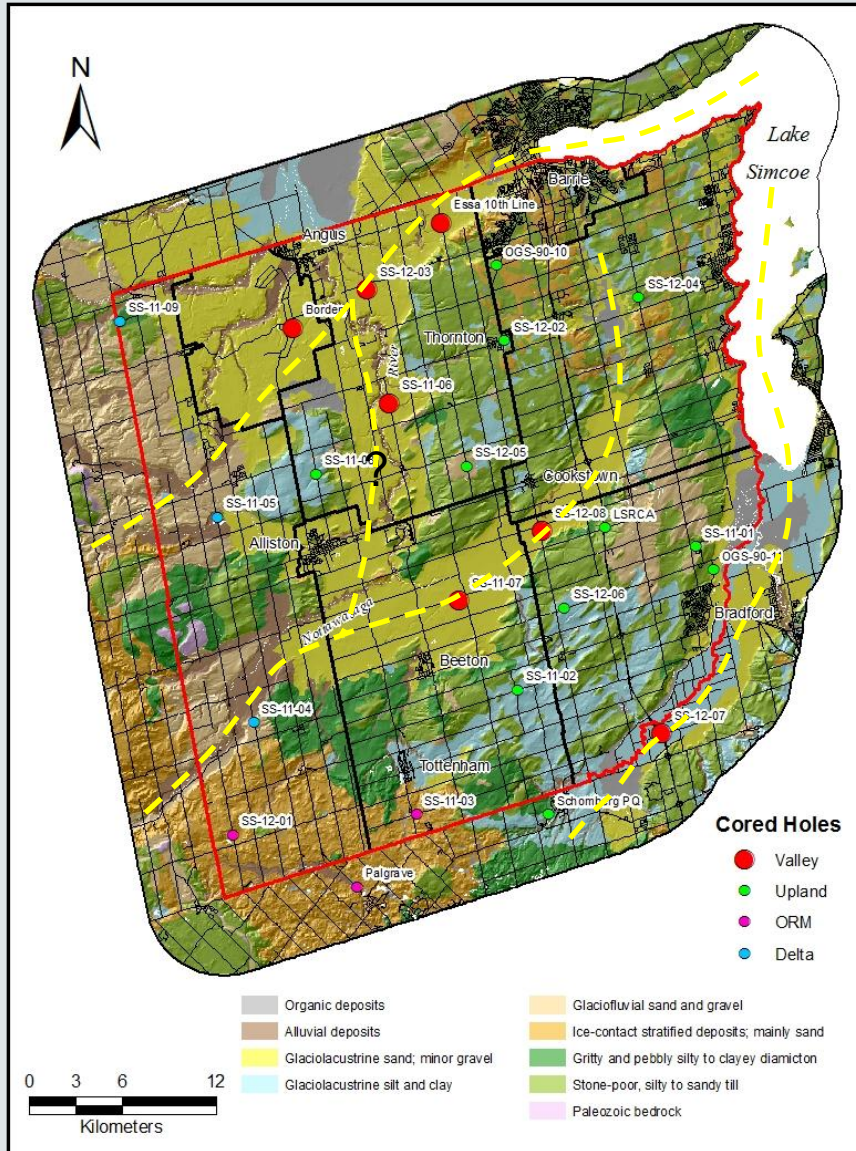
Lodgement Facies



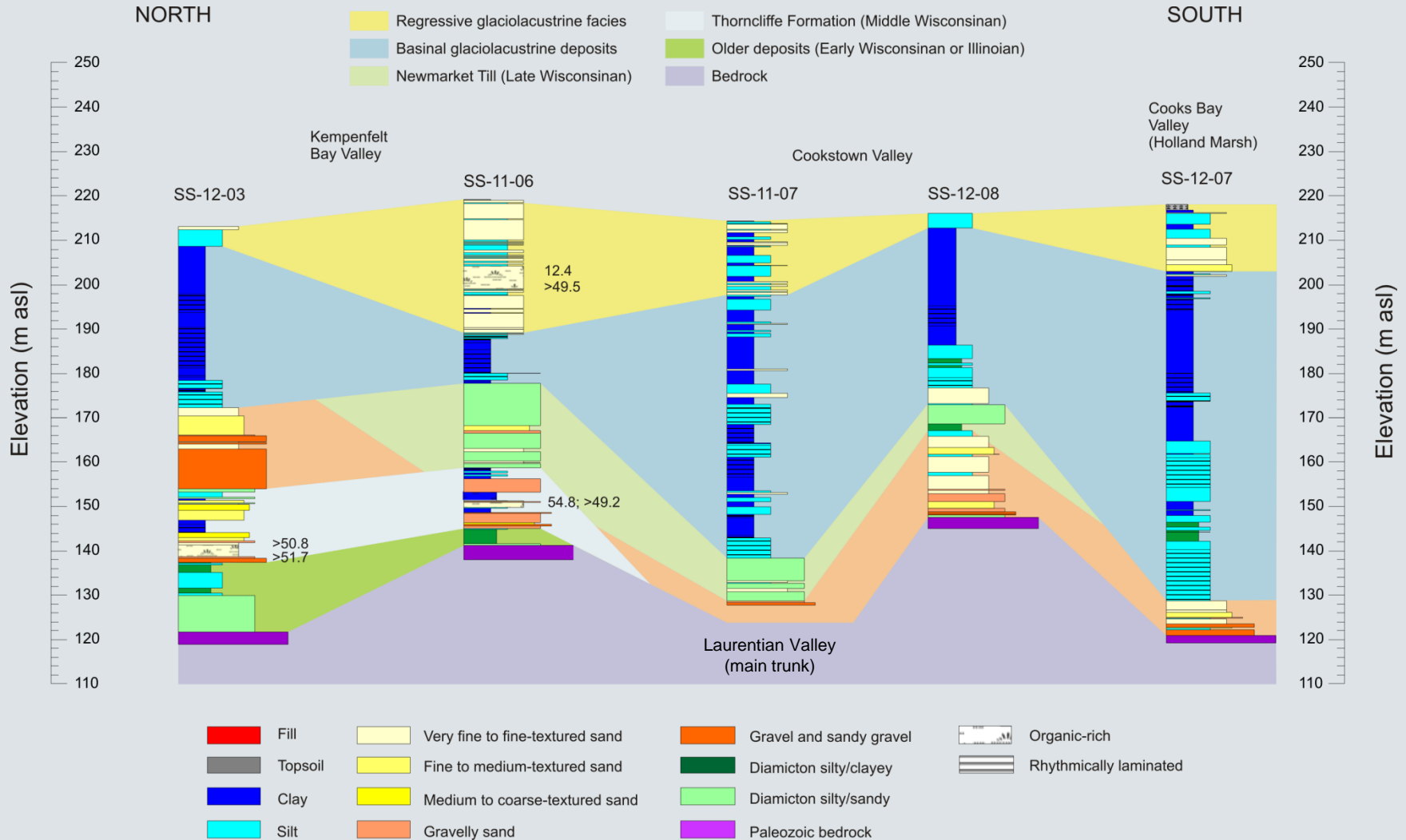
Flow Till Facies

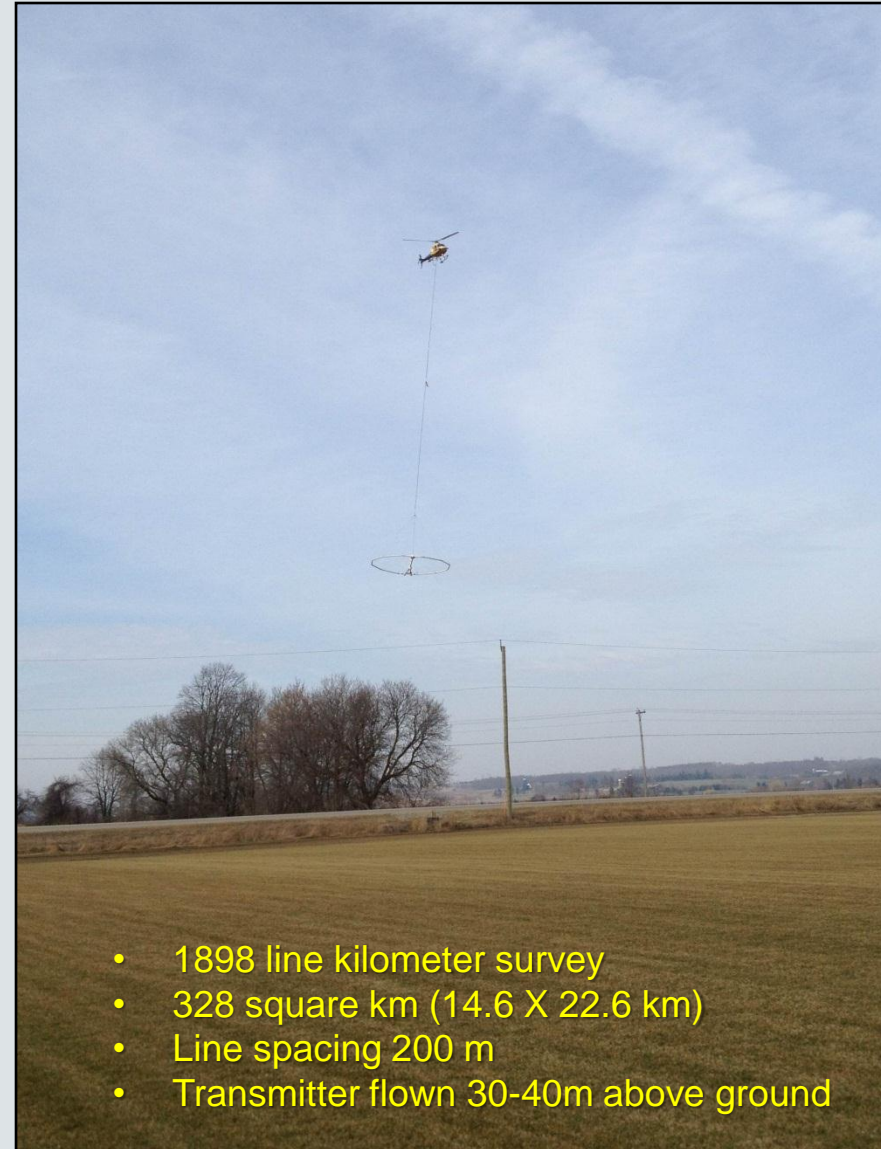
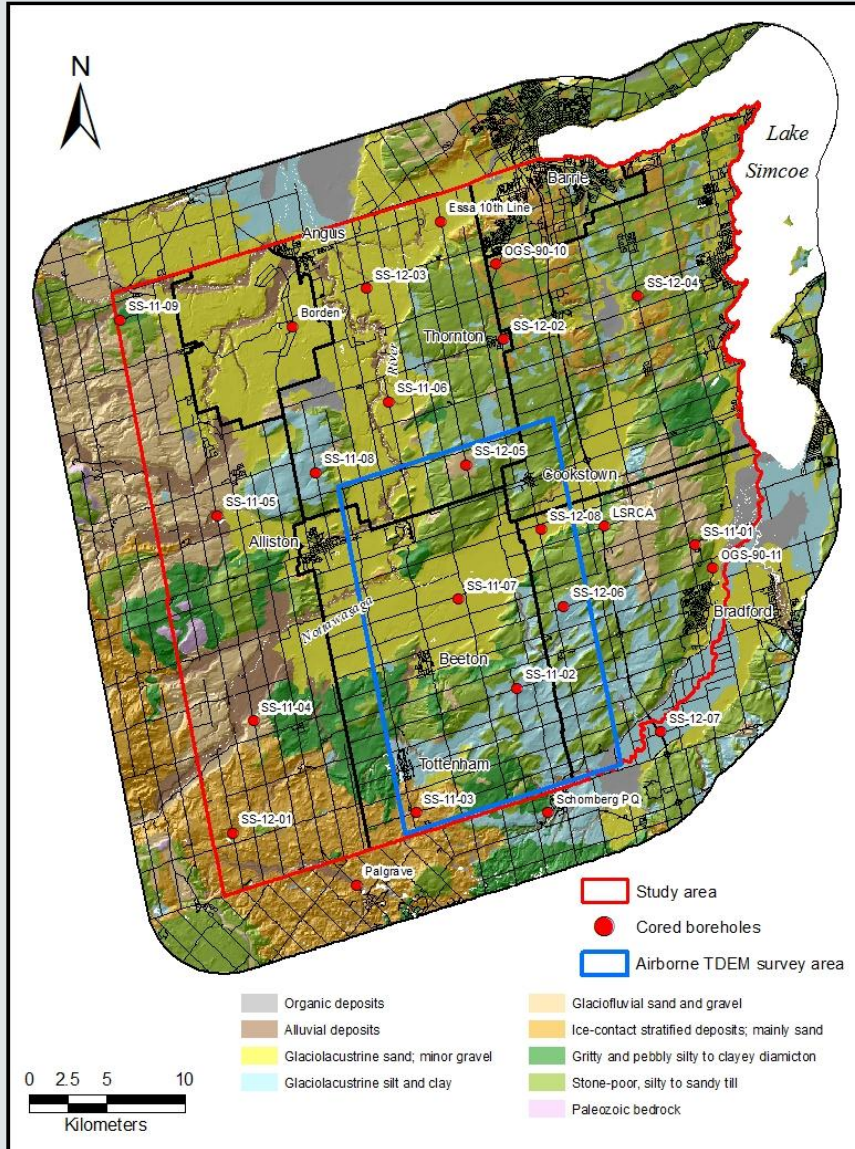


Tunnel Channel Sediment Record



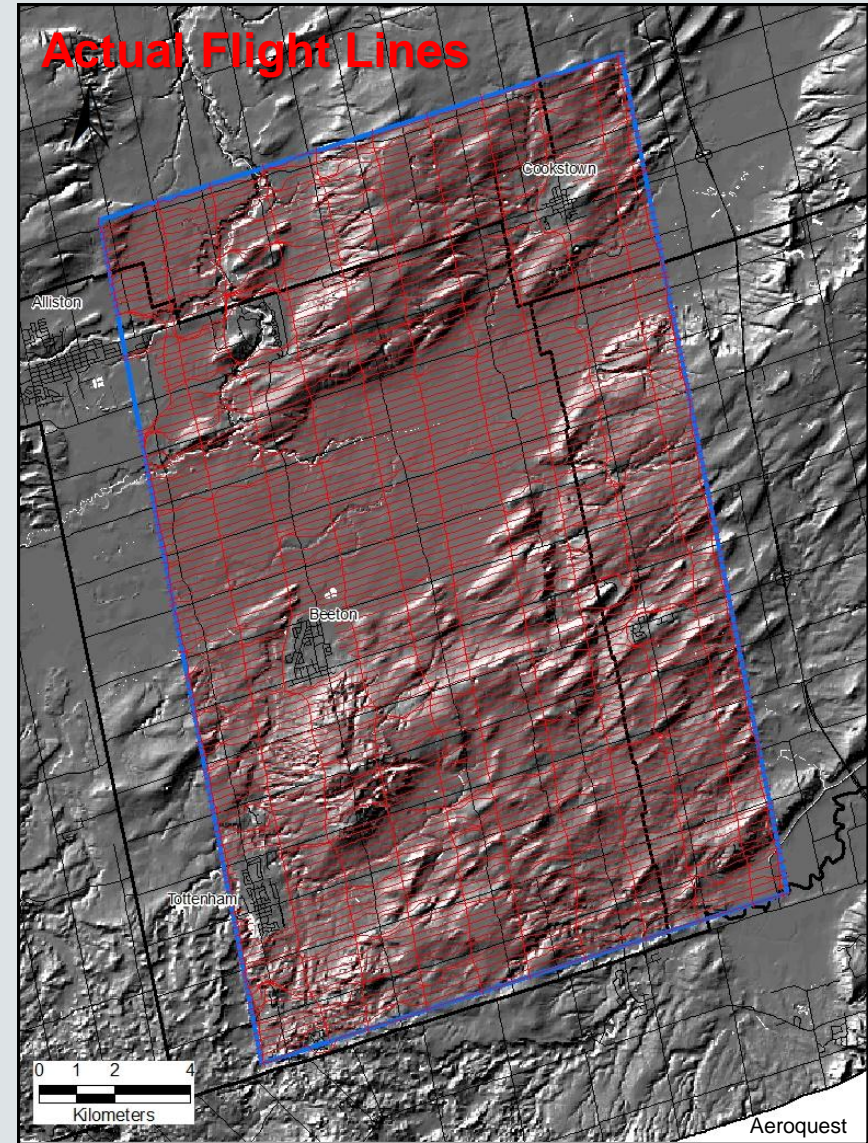
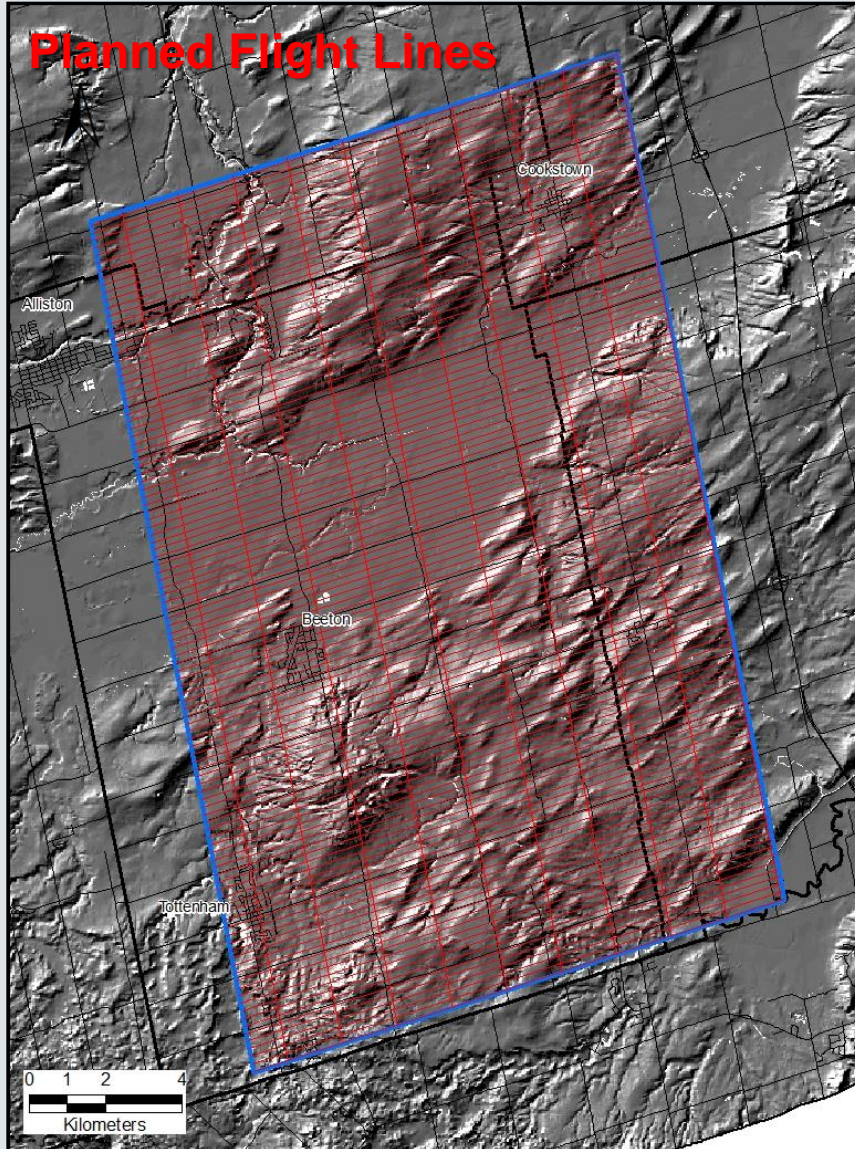
Tunnel Channel Sediment Record





- 1898 line kilometer survey
- 328 square km (14.6 X 22.6 km)
- Line spacing 200 m
- Transmitter flown 30-40m above ground

Time-Domain Electromagnetic Survey



Aarhus Geophysics 

Report Number 2012_05

Processing and inversion of AeroTEM data

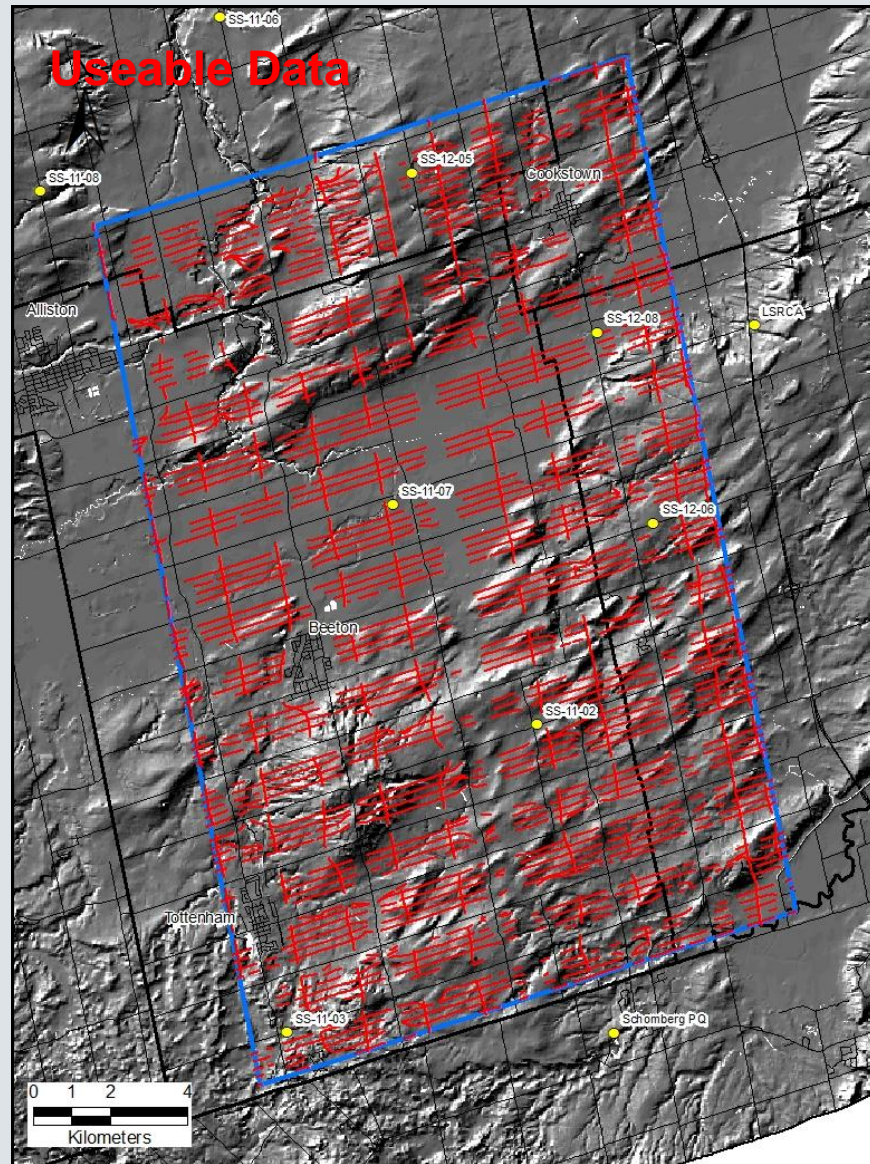
Client: Aeroquest

"Simcoe South Area"

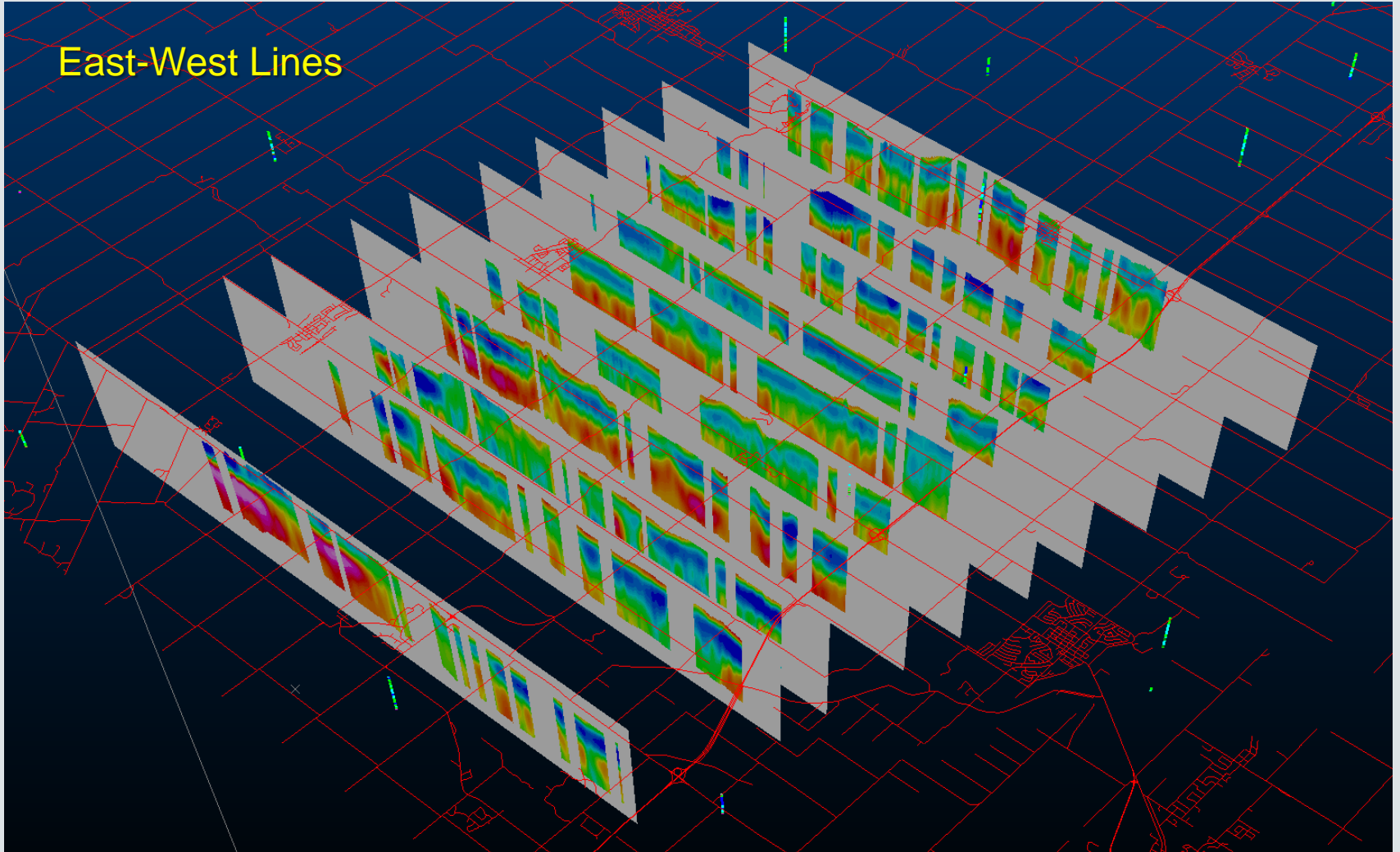


6/27/2012 Aarhus 2012_05, AeroTEM, "Simcoe South Area"

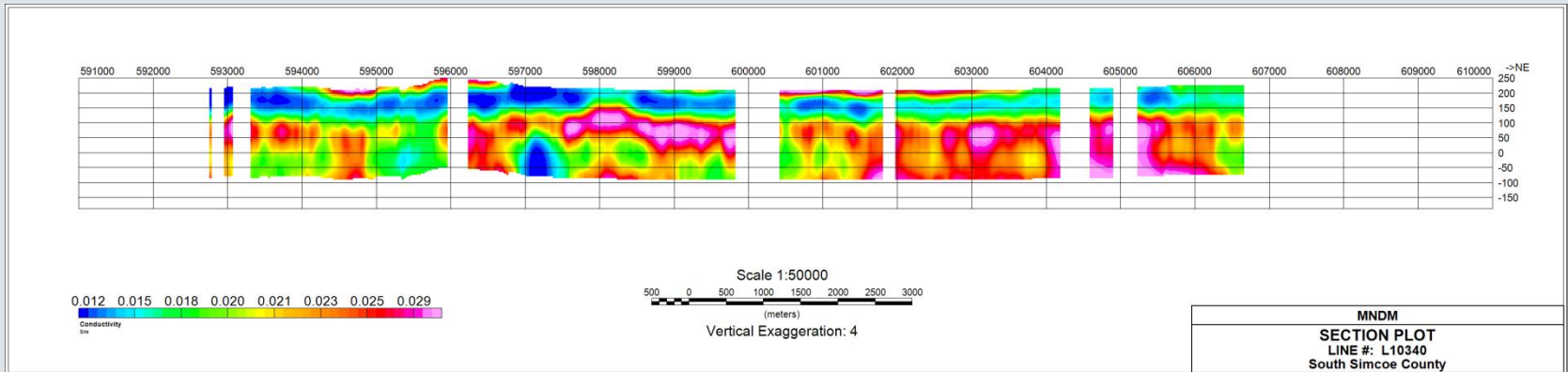
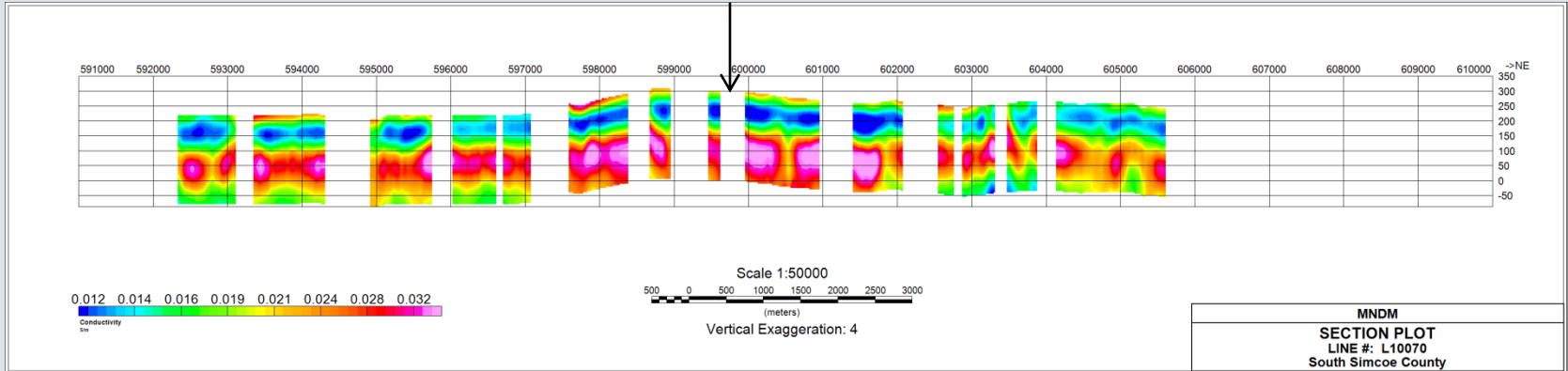
1-D Laterally constrained inversion



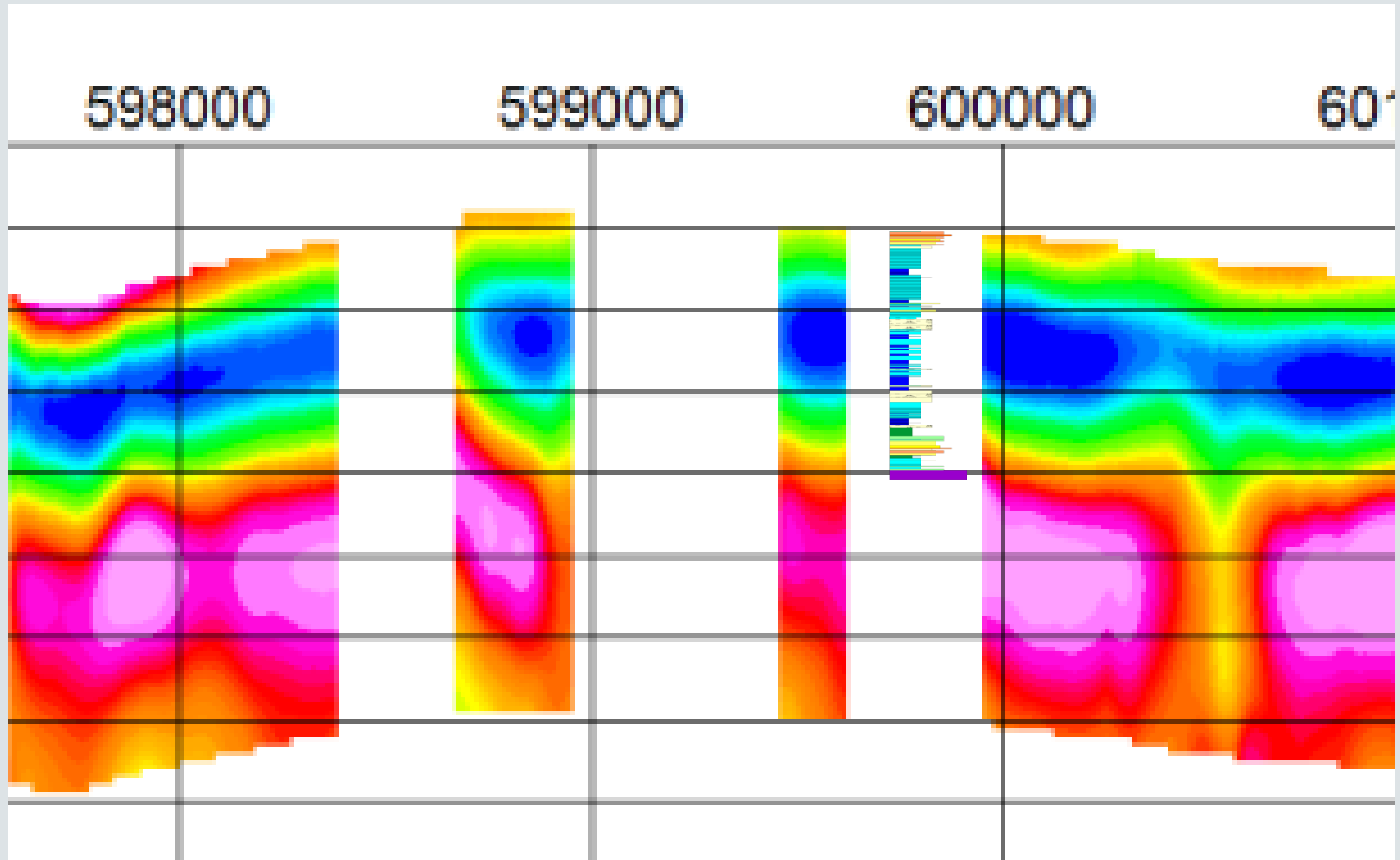
East-West Lines



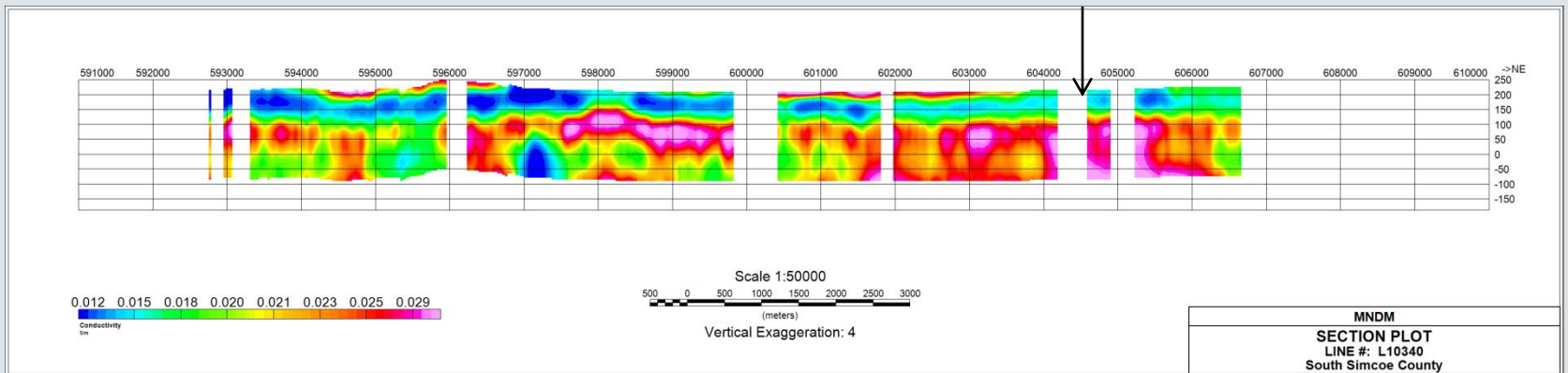
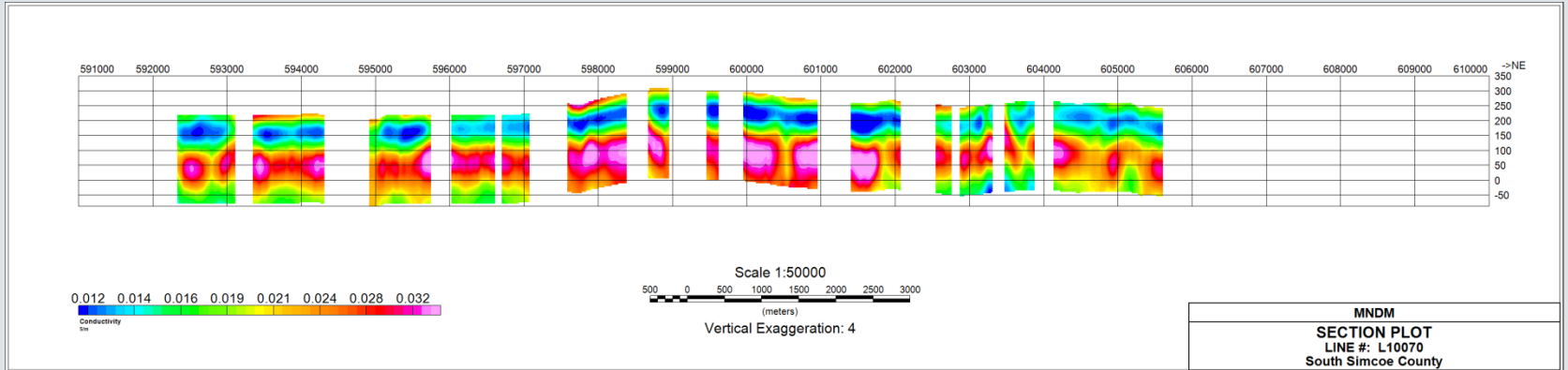
Time-Domain Electromagnetic Survey (Examples)



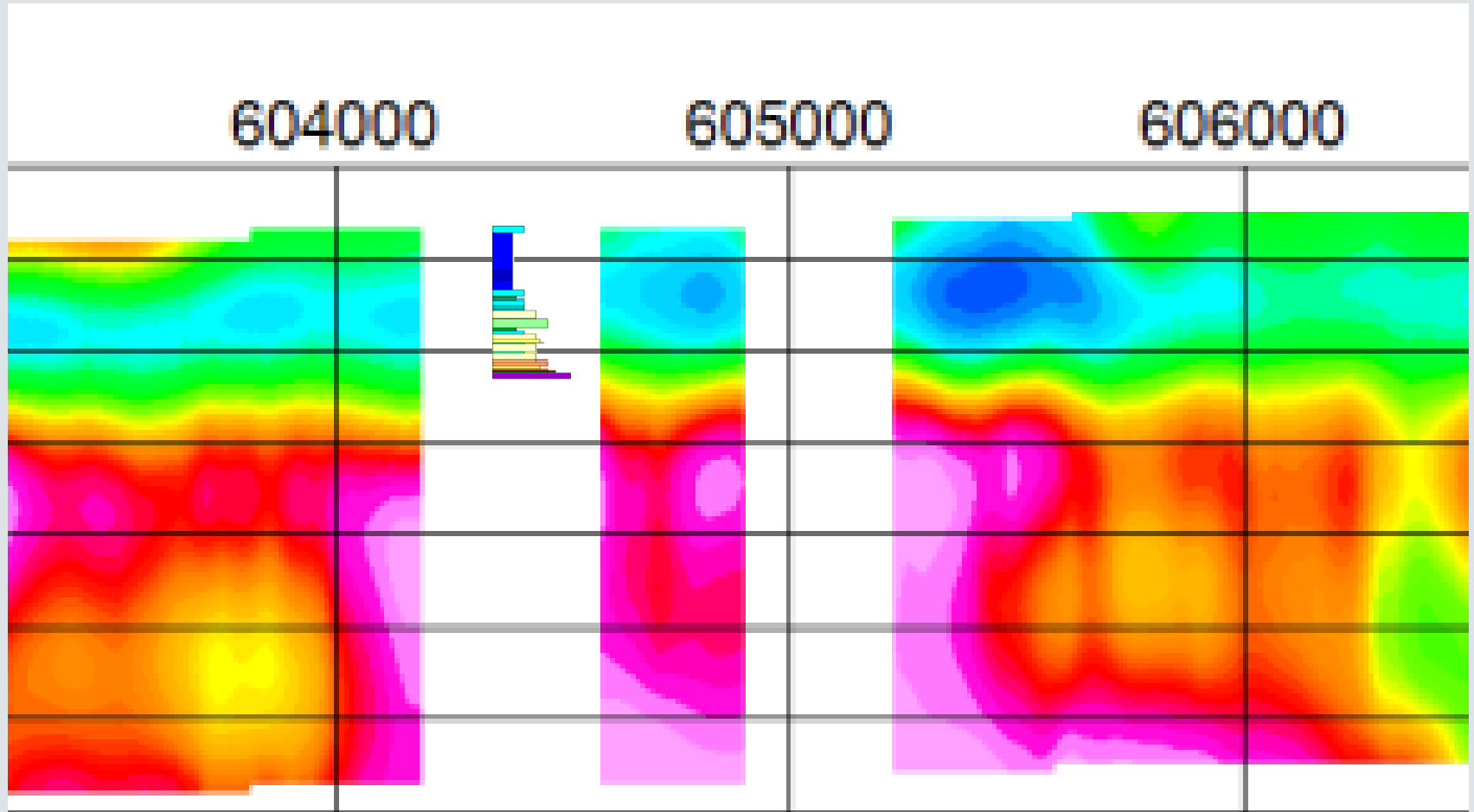
Time-Domain Electromagnetic Survey (Examples)



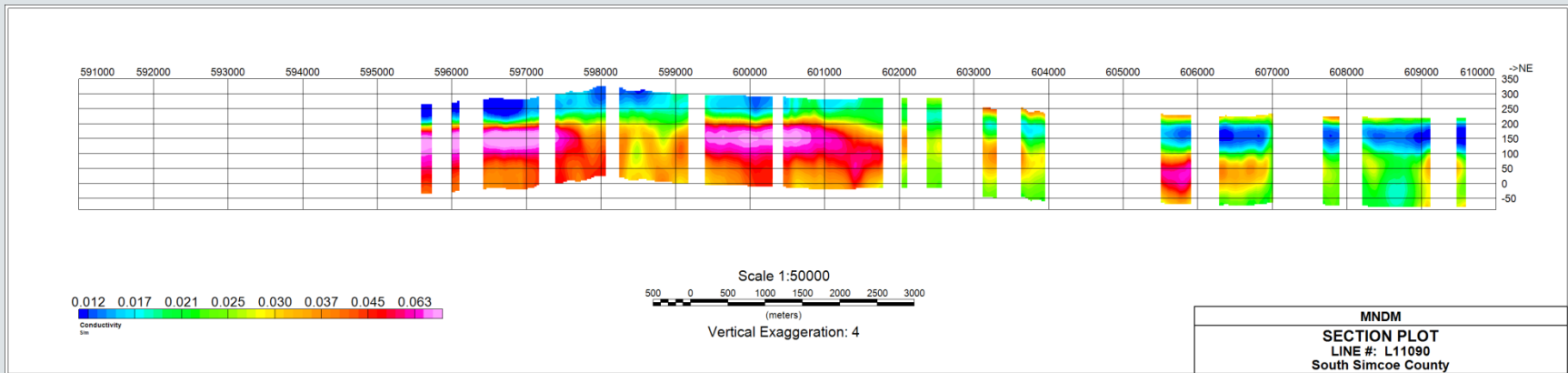
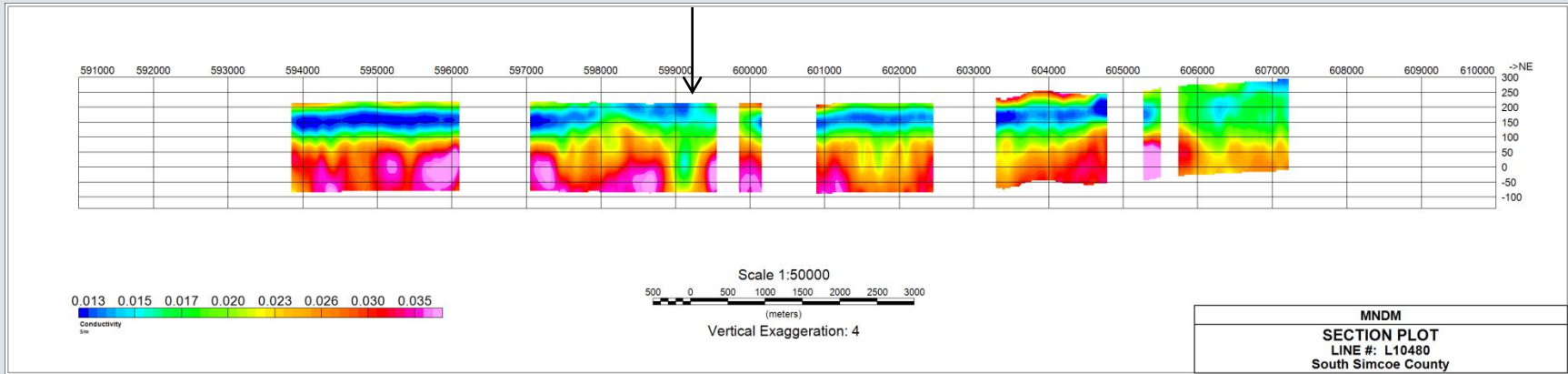
Time-Domain Electromagnetic Survey (Examples)



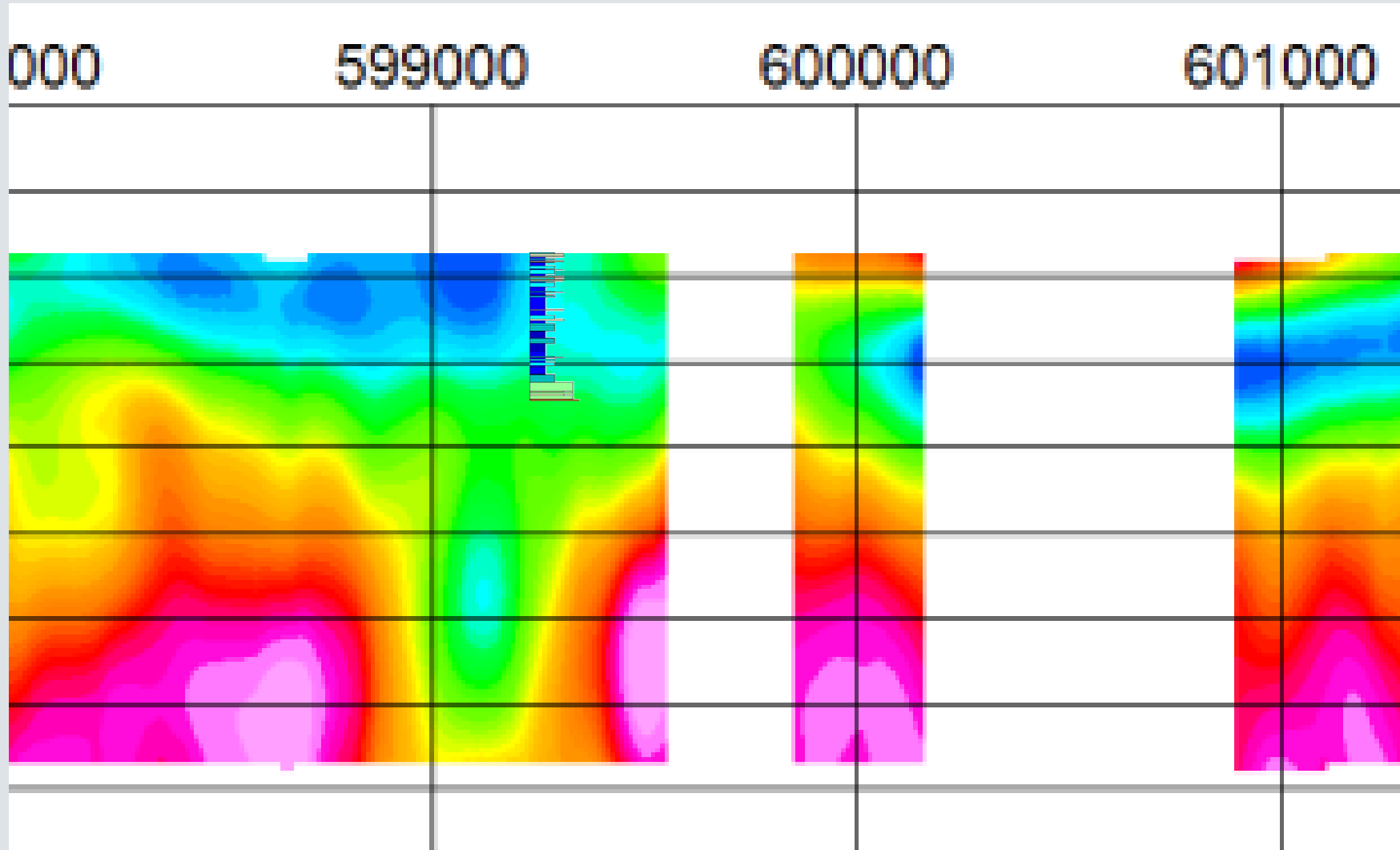
Time-Domain Electromagnetic Survey (Examples)



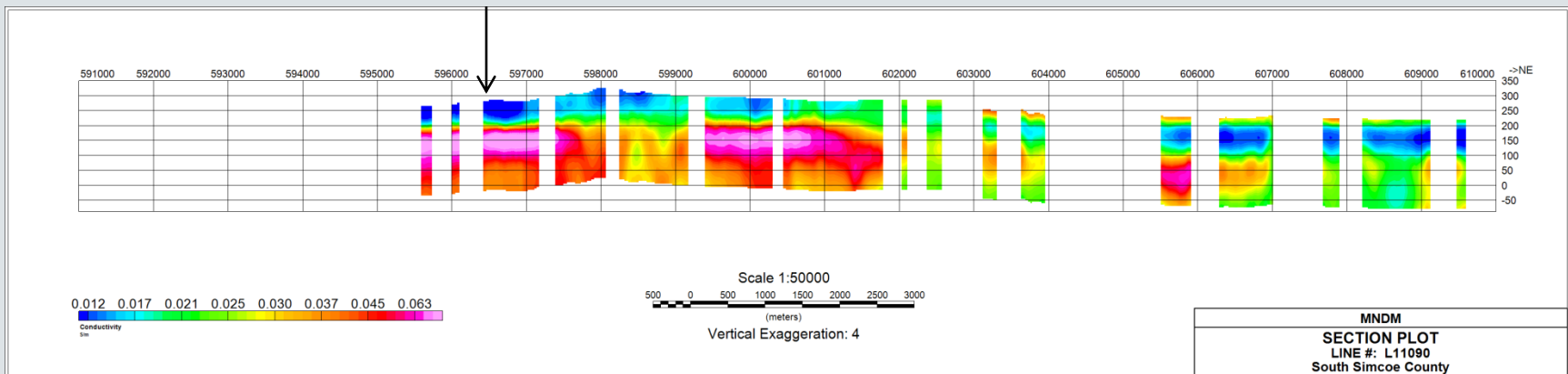
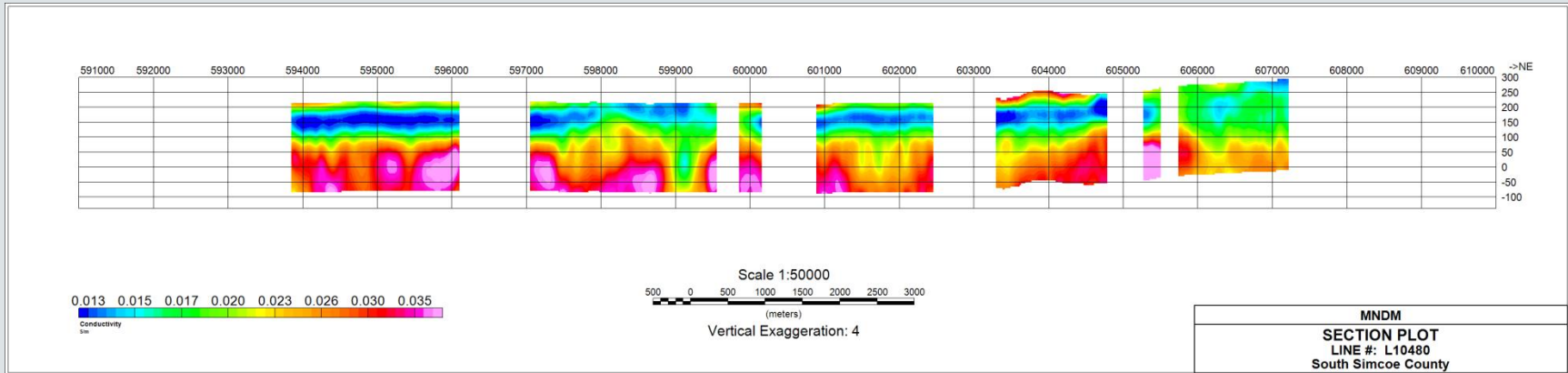
Time-Domain Electromagnetic Survey (Examples)



Time-Domain Electromagnetic Survey (Examples)



Time-Domain Electromagnetic Survey (Examples)



- Detailed analysis of TDEM survey results
- Establish targets for follow-up drilling (spring 2013)
- Final drill program (summer 2013)
- Construction of block model (summer/fall 2013)
- Final Report (2014)

