

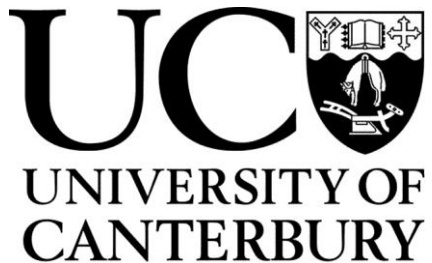
Field Work for South Island Basin Characterisation

Chris de la Torre

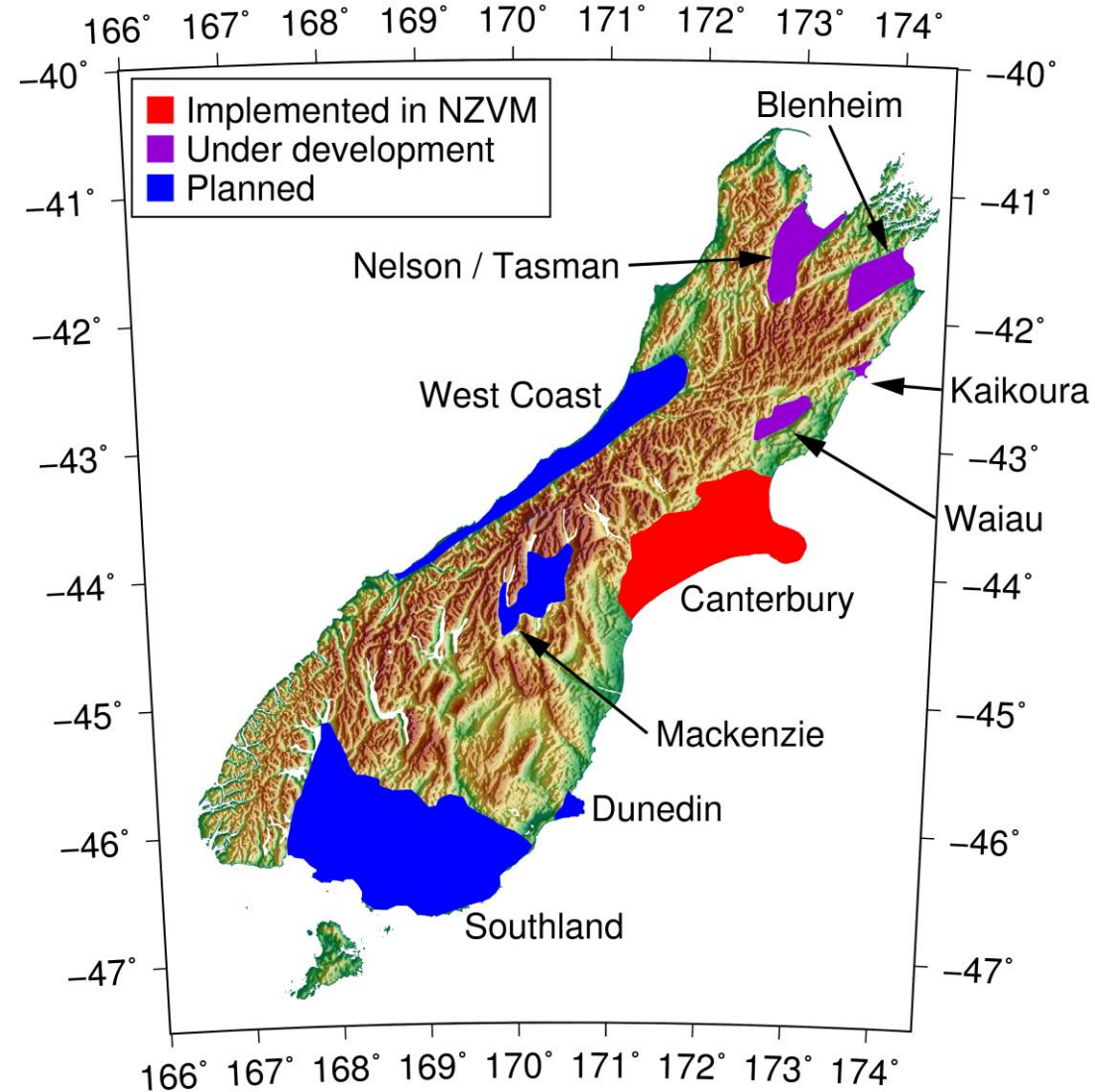
Seokho Jeong

Brendon Bradley

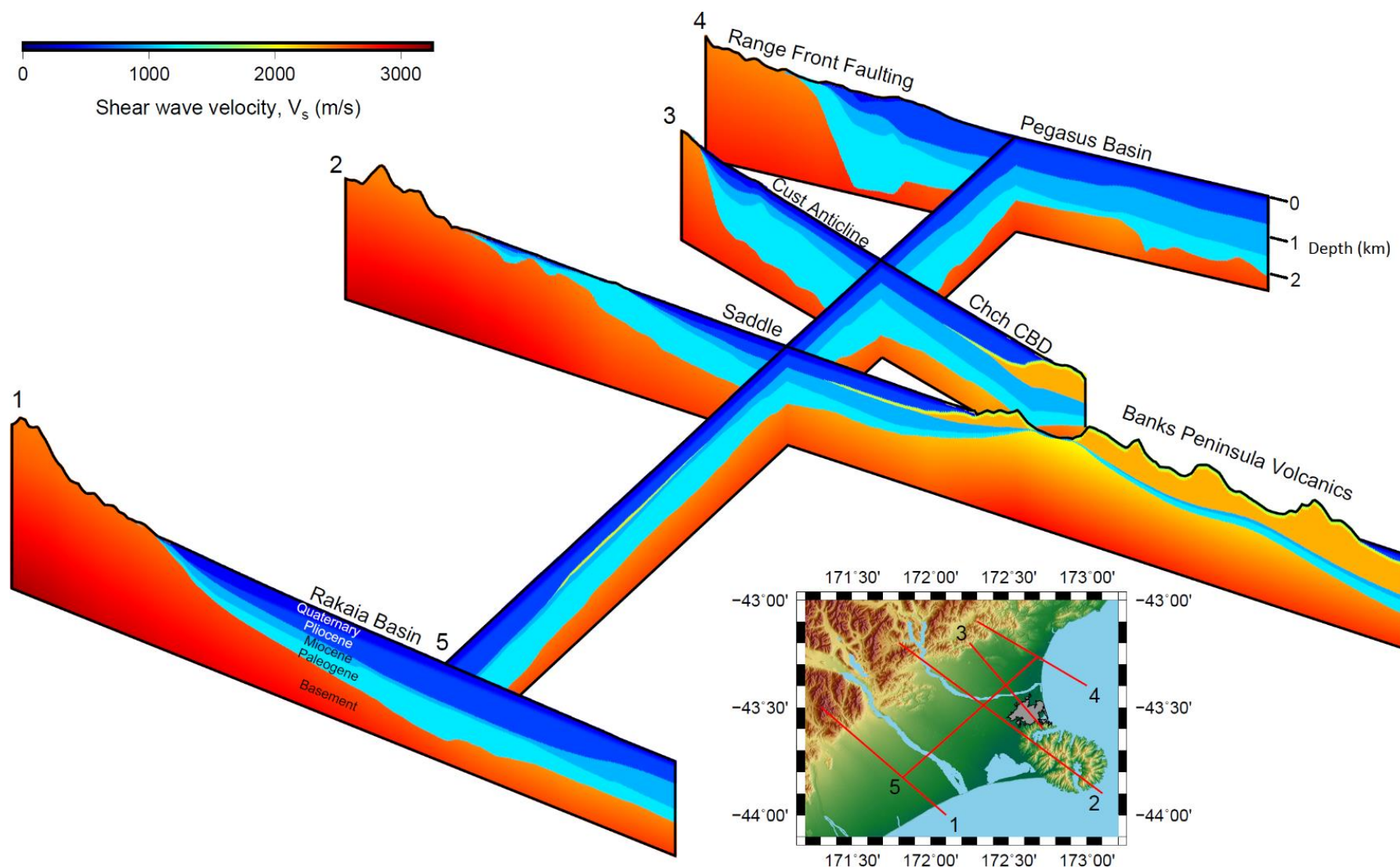
26 April 2018



Basin of the South Island

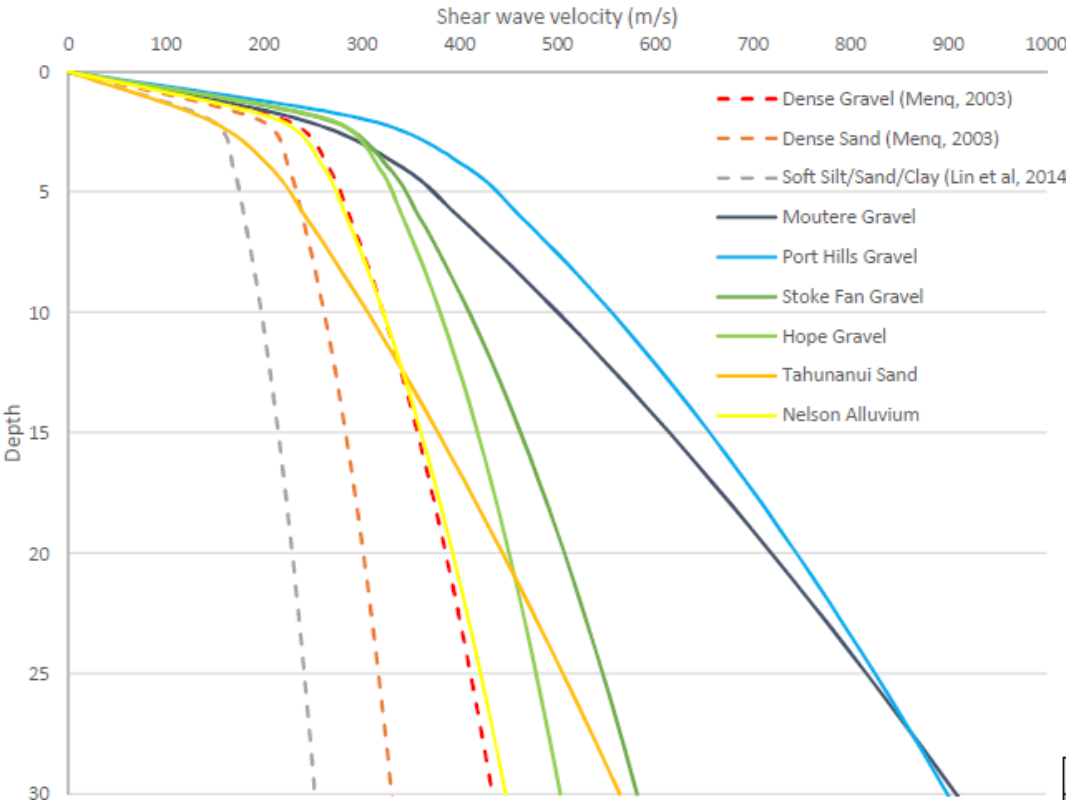
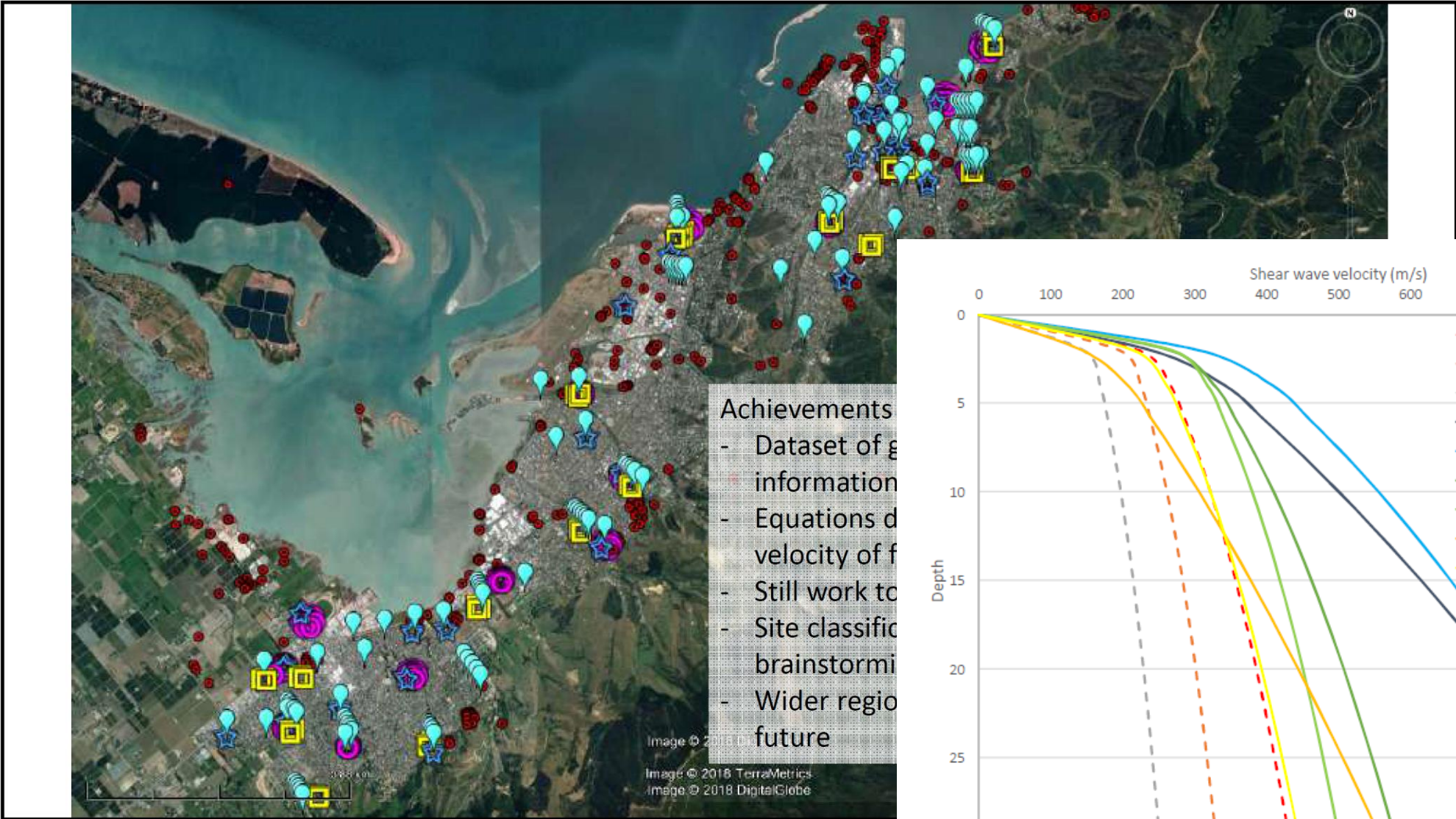


Canterbury: "Finished" Product



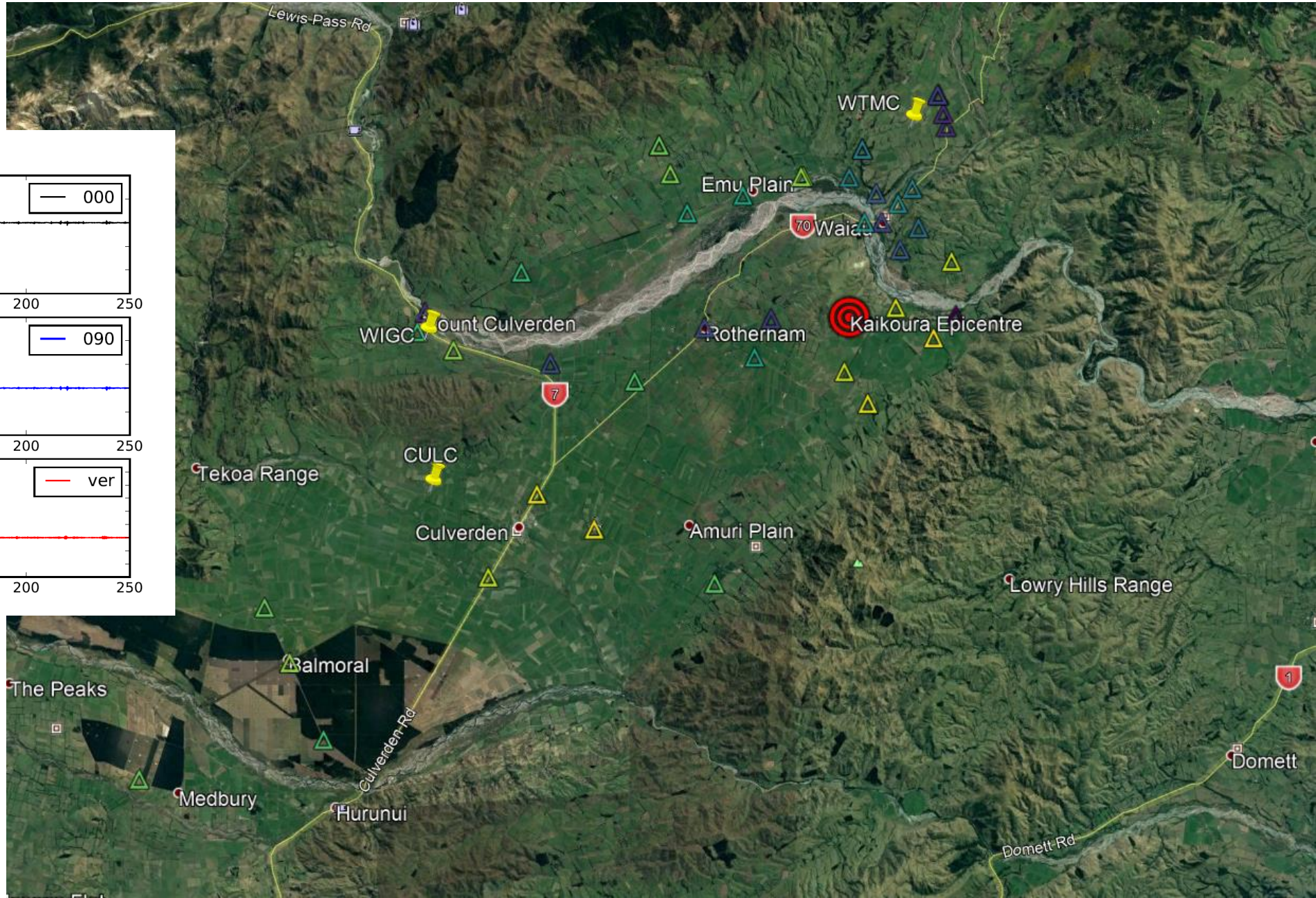
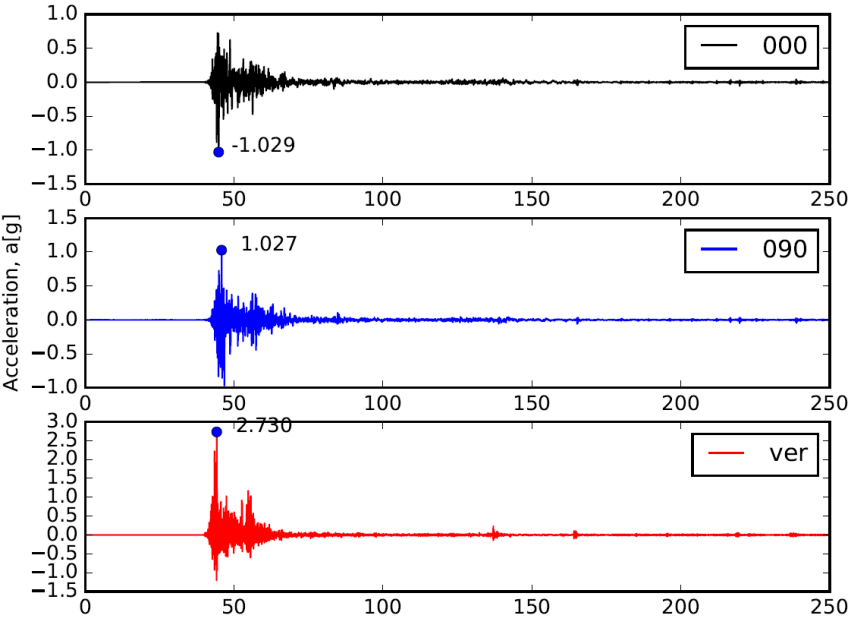
Nelson

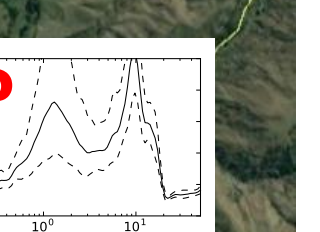
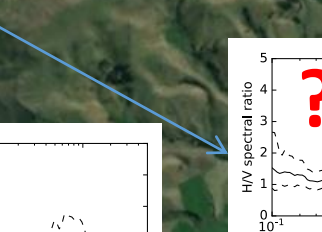
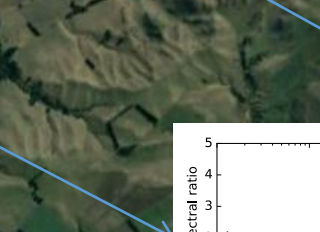
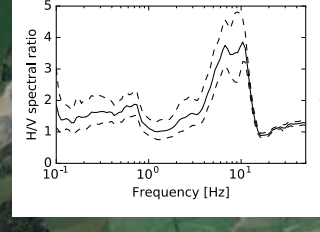
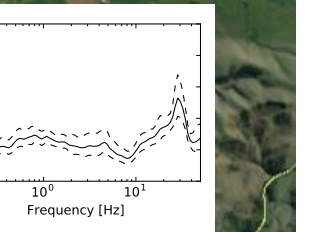
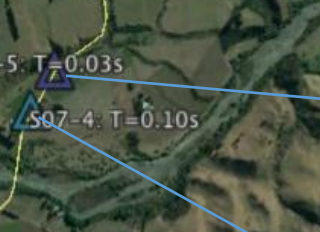
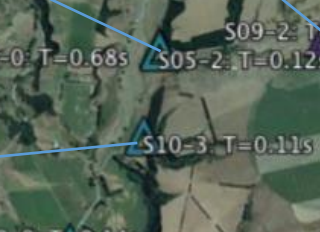
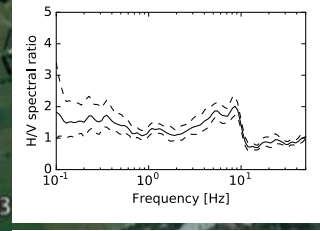
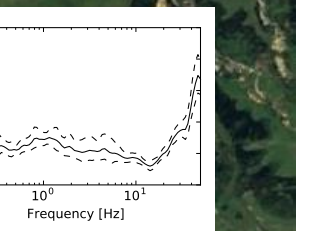
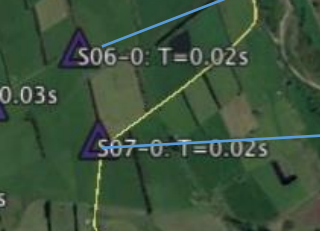
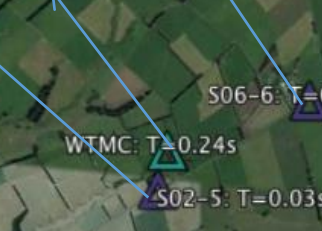
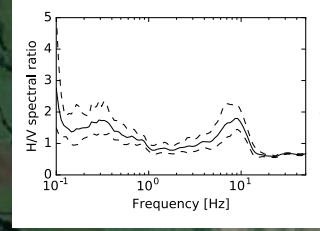
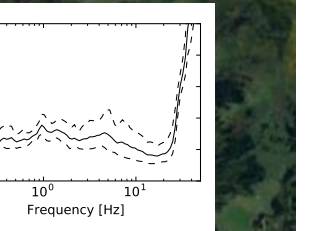
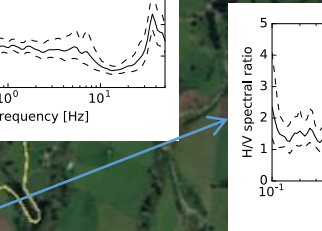
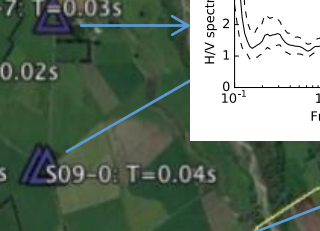
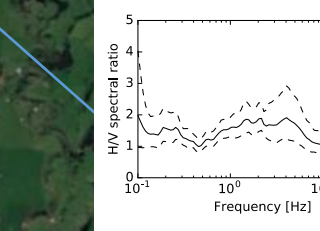
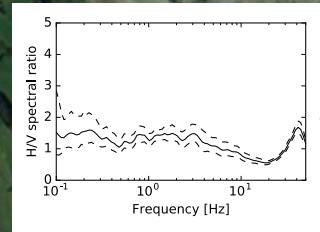
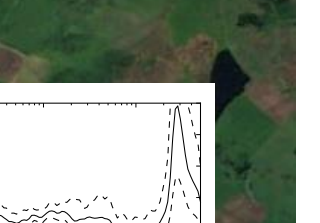
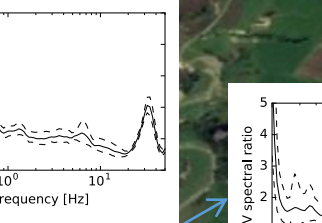
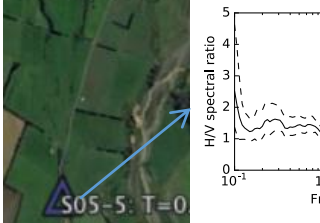
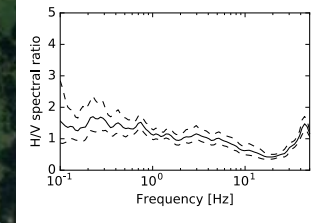
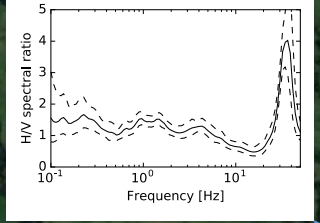
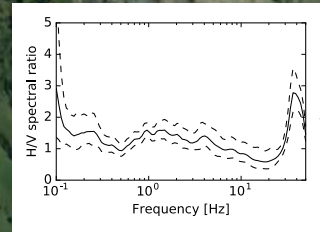
McMahon and Wotherspoon 2018



Waiau

WTMC, PGA geometric mean=1.028





Google Earth

Imago © 2017 DigitalGlobe
© 2017 Google



2 km



Leslie St
Hanna St

Leslie

S02-1 T=0.25s
S06-1 T=0.03s
S04-0 T=0.17s
S05-0 T=0.13s
S02-0 T=0.08s

S08-0 T=0.68s
S05-2 T=0.12s

S09-2 T=0.02s

S02-5 T=0.03s

WTMC T=0.24s

S06-6 T=0.03s

S07-0 T=0.02s

S06-0 T=0.02s

S01-4 T=0.03s

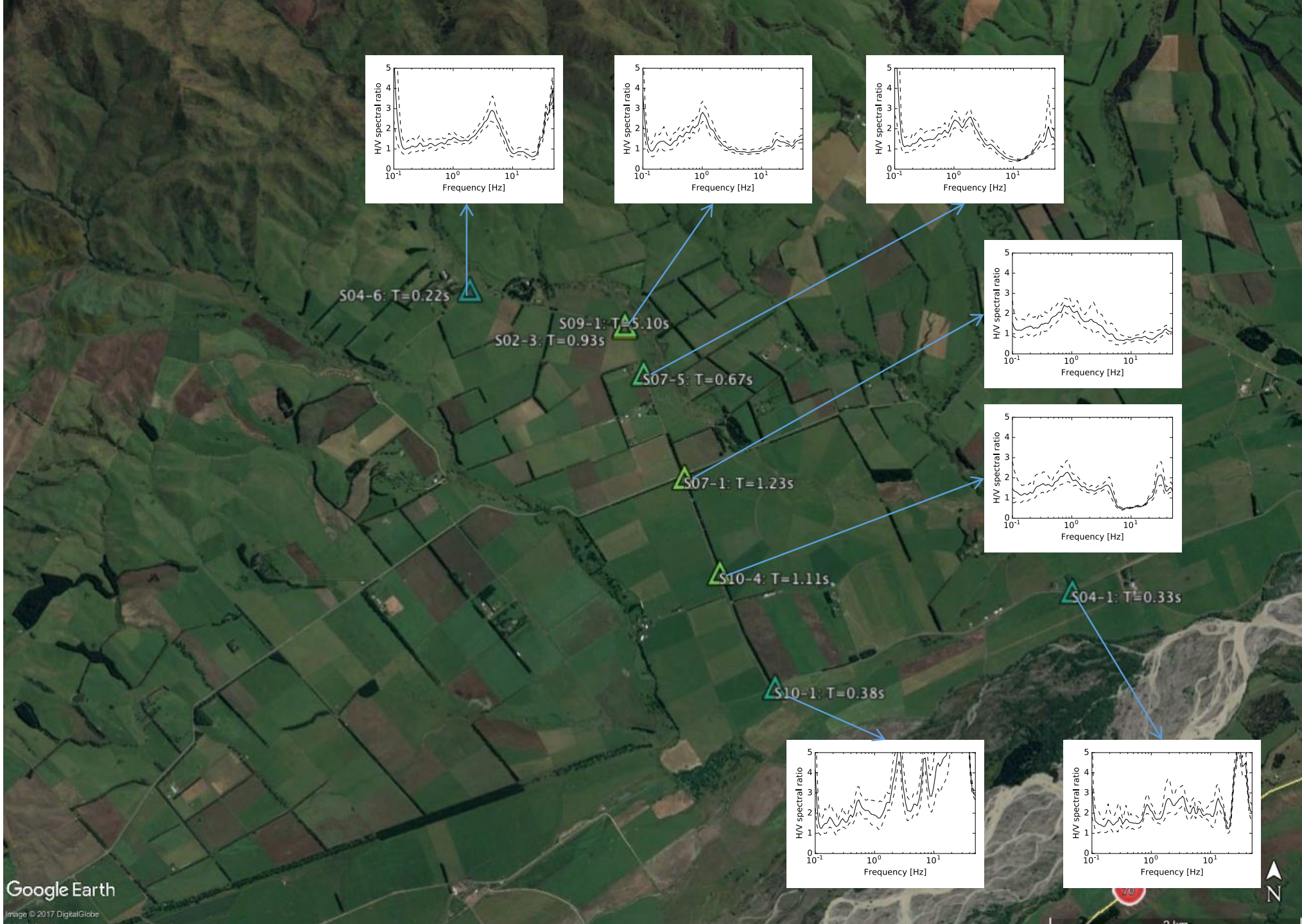
S09-0 T=0.04s

S01-7 T=0.03s

S03-3 T=0.02s

S05-5 T=0

?



S04-6: T=0.22s

S09-1: T=5.10s
S02-3: T=0.93s

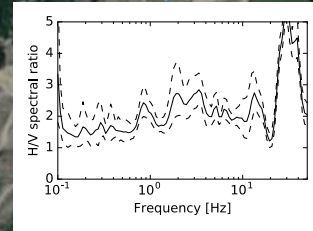
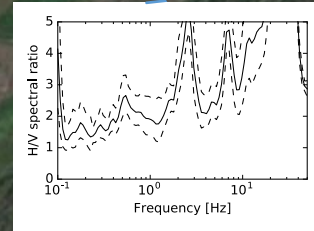
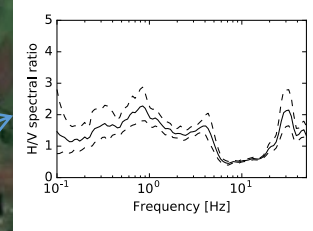
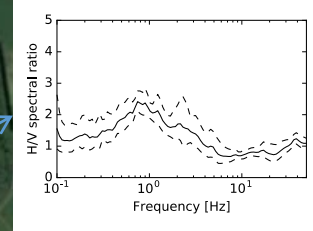
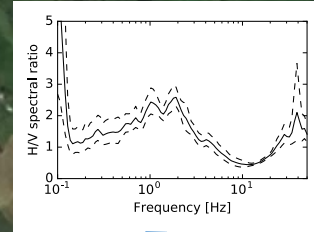
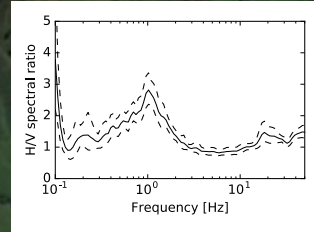
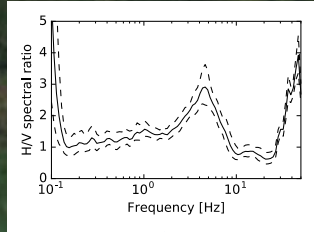
S07-5: T=0.67s

S07-1: T=1.23s

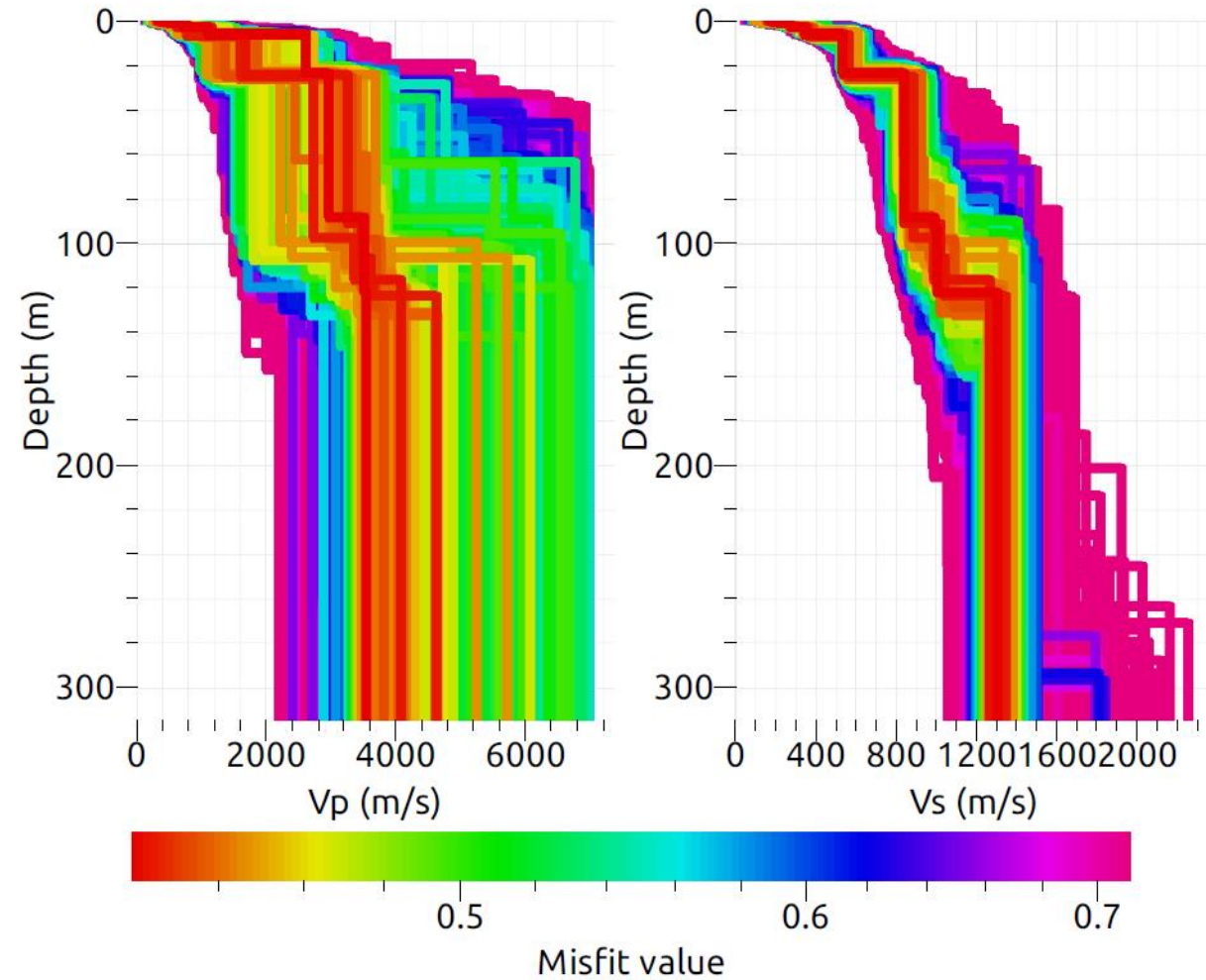
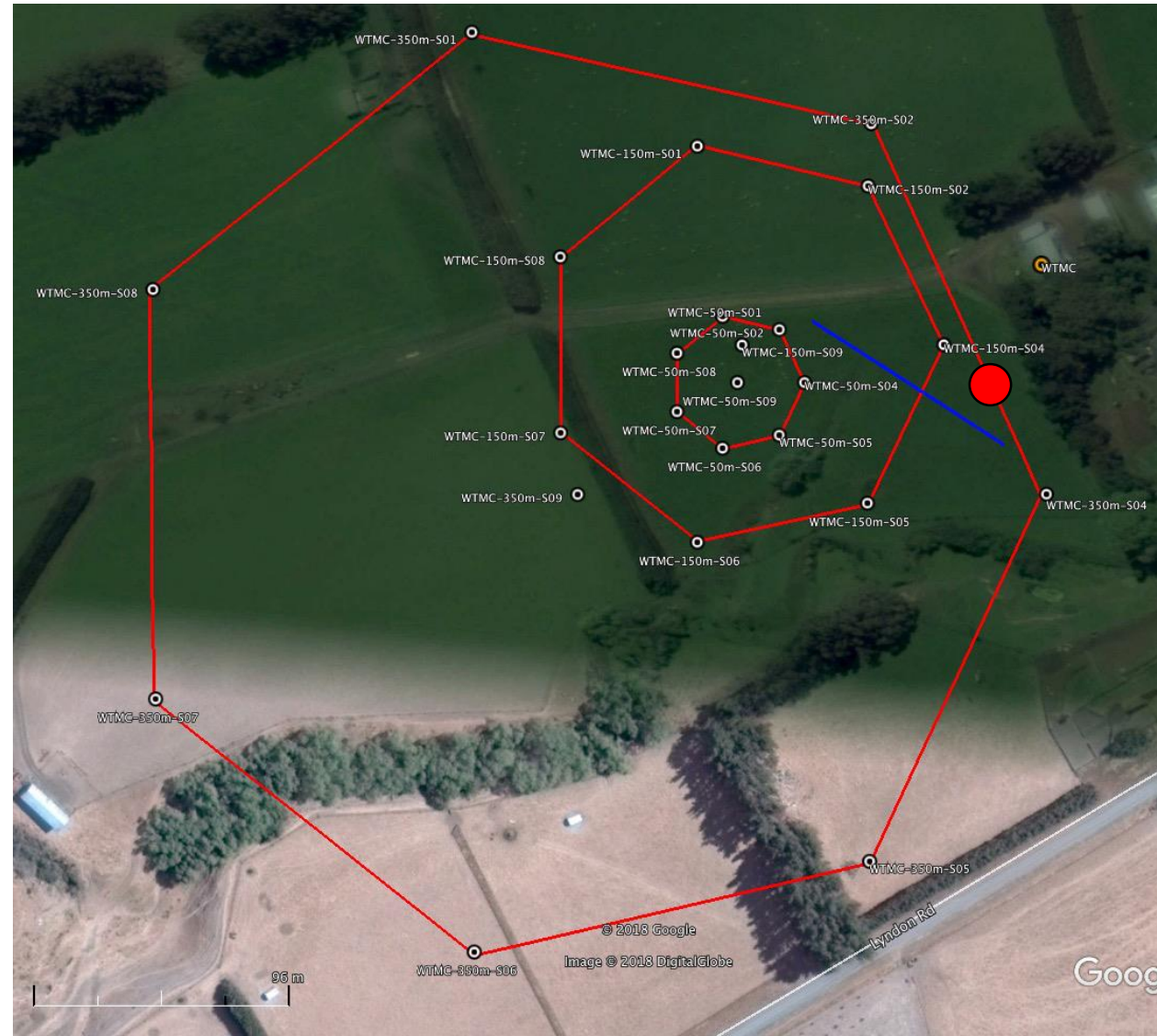
S10-4: T=1.11s

S10-1: T=0.38s

S04-1: T=0.33s

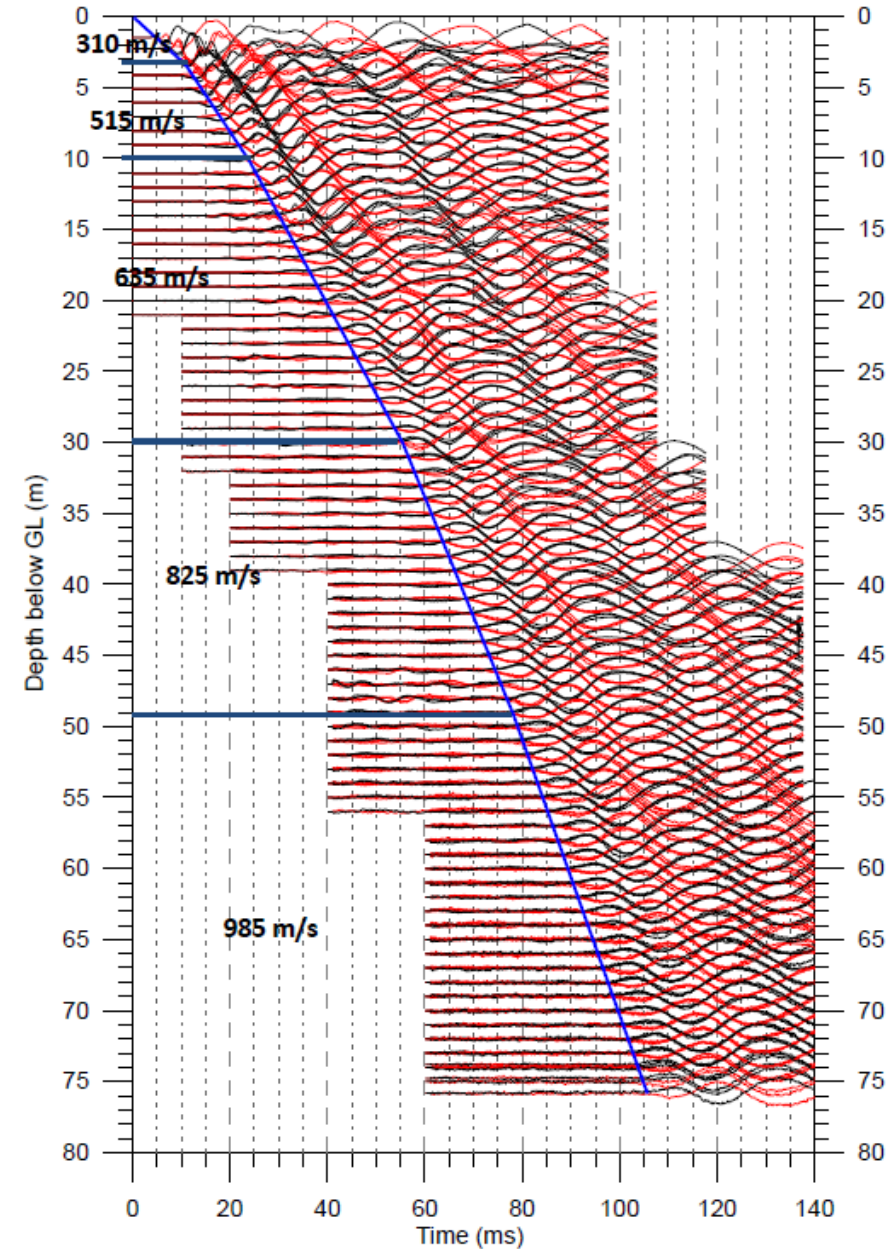


Waiau – WTMC Surface Wave Testing

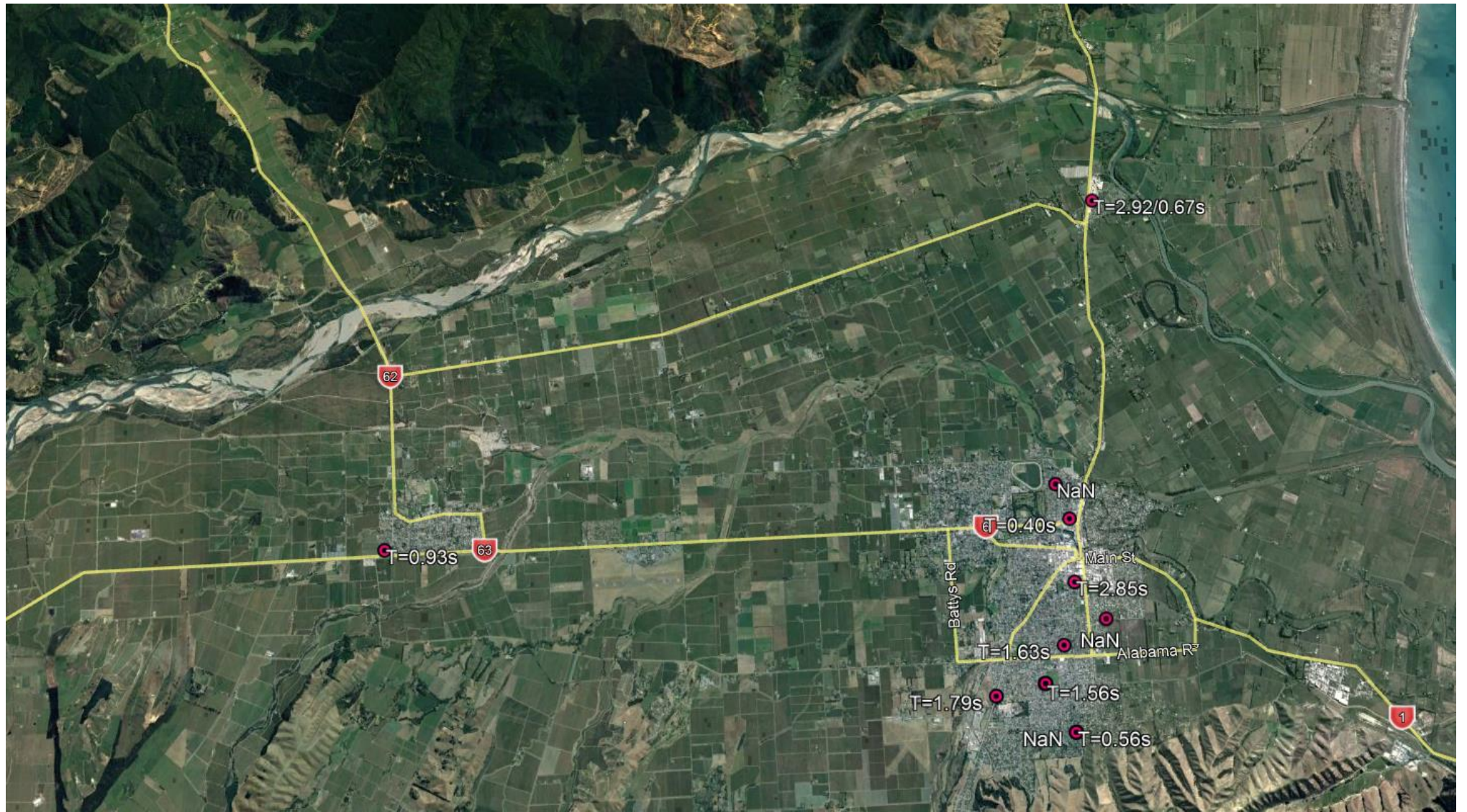


Waiau – Drilling and Downhole Vs

76m of gravel

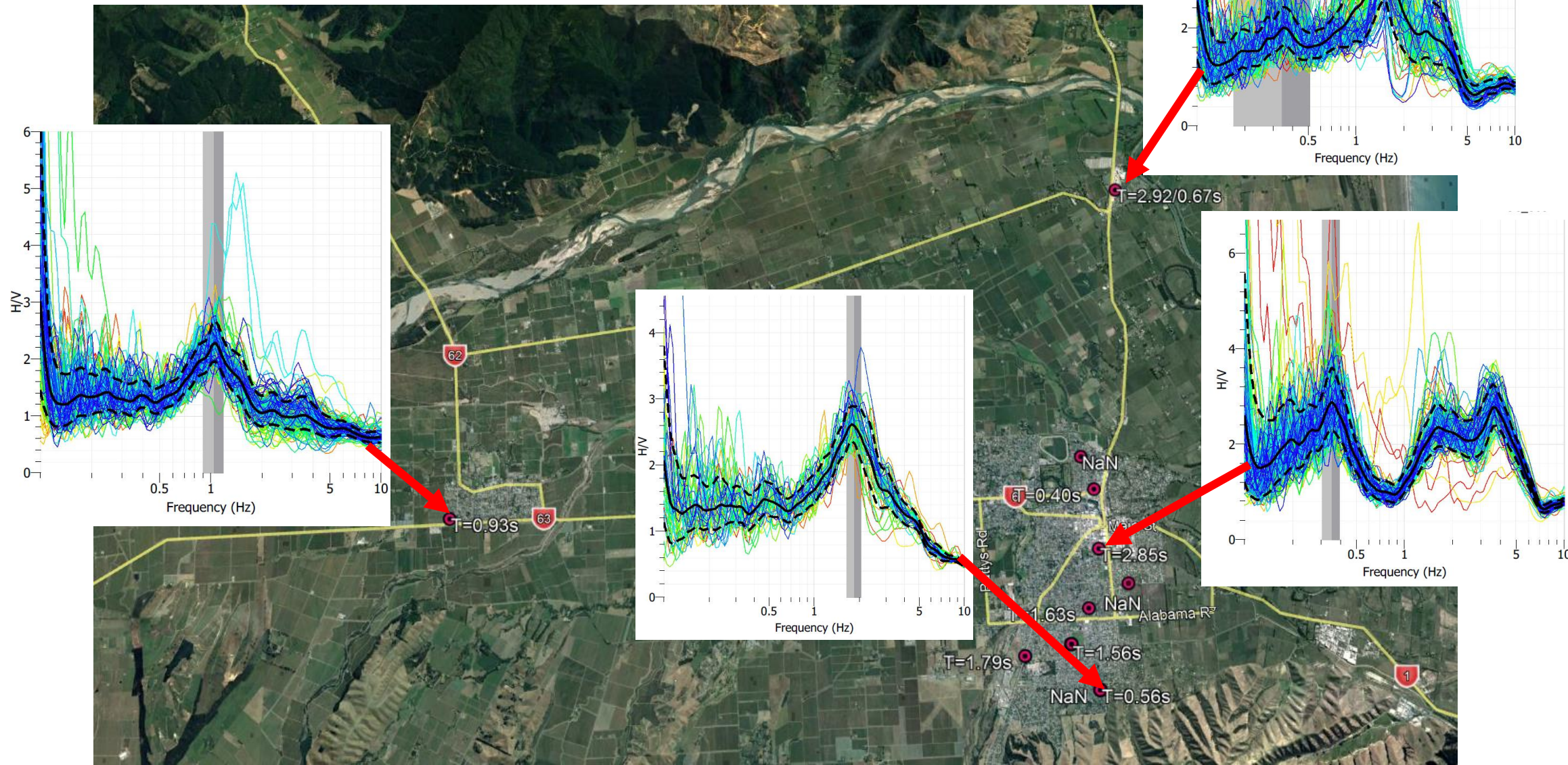


Blenheim – Ambient H/V Sites



Blenheim – Data

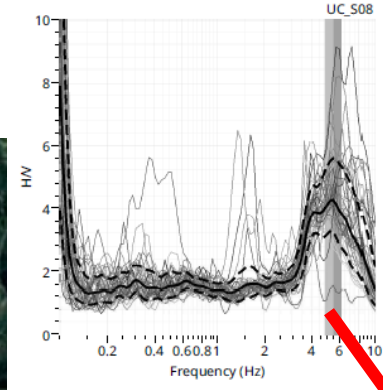
$T_0 = 3s, V_{s,avg} = 600 \text{ m/s} \rightarrow z = 450\text{m}$



Kaikoura



Kaikoura



$$T_0 = 1.2s, V_{S,avg} = 600 \text{ m/s} \rightarrow z = 180m$$

