



Supplemental Figure 1: Simplified stratigraphic columns for all transects investigated in this study. X-axis is density for all columns other than the Grey's Landing ignimbrite (no density data available). In the Whakamaru section, highlighted in yellow is the region exposed at the Maraetai Dam, the focus site of this study with subunits (A-F) from Briggs (1976b). All other sites utilize all available samples over the entire stratigraphic height. Solid horizontal lines indicate contacts between ignimbrite flow packages and fall deposits. In the Grey's Landing ignimbrite the upper and lower vitrophyre (U. vitr. and L. vitr.) are indicated by dashed lines. Stratigraphic columns are reconstructed from Martin (1965), Wilson and Hildreth (2003), and Ellis et al (2015).