As is often the case in THERMOCALC melt models, in ds6.33 (hp633ver.dat) the water melt endmember (h2oL) is more stable than the real pure water phase as shown below. If the T_melt option is set to 873 K (its default), the region where h2oL is more stable than H2O will be restricted to pressure > ~25000 bar. Within the region where h2oL is overstabilized beware of the following potential conflicts:

1) If the component H2O is saturated, Perple_X will project through h2oL rather than H2O, this effect will destabilize water-bearing minerals. To avoid this conflict specify H2O as a saturated phase component.

2) Holland et al. (2018) provide a model for a low-density silicate-bearing fluid (Aqfl(HGP) in Perple_X), h2oL may destabilize this model, particularly at conditions where the solute concentration in Aqfl is low.