Temperature discontinuities in the Surface Quasi-Geostrophic (SQG) equations support surface waves. For weakly non-linear surface waves on SQG fronts that are described as a graph, we derive a nonlocal and nonlinear equation with logarithmic dispersion. With the help of Weyl quantization, dispersive decay, and modified scattering, we prove global-in-time well-posedness of the initial value problem for the SQG front equation with sufficiently small and smooth initial data. (Received August 06, 2018)