Cabbeling Two parent water masses of equal density mix and produce a water type denser than either original, which sinks. This is especially a case in polar regions, where $S$ is a determining factor in relative densities, and the water column stability is weak.

- Compressiblity, $K$: $\frac{\partial K}{\partial T} < 0$, or colder water is more compressible than warm water. This produces a rotation of $\sigma_p$ lines in T-S space.

$\frac{\partial K}{\partial P} < 0$, or water at depth (under pressure) is less compressible than surface water, for the same change in pressure.

$\frac{\partial K}{\partial S} < 0$, or salty water is less compressible than fresh water – this makes sense if you think of the salt as taking up spaces left between water molecules.

- Scales:

$\beta = O(1.4 \times 10^{-4} / ^\circ C)$

$K = O(4 - 5 \times 10^{-6} / \text{dbar})$

$b = O(7 \times 10^{-4} / ^\circ/\infty)$