

Supporting Information for: “Dissolved Inorganic Carbon budgets in the eastern Subpolar North Atlantic in the 2000s from *in situ* data”

Table S1. Water mass properties at the Greenland-Iceland-Scotland Sills

Volume transport (positive northeastwards) from Pérez et al. [2013] and water mass properties (*in situ* density (ρ), DIC and C_{ant}) from Jeansson et al. [2011]. $[C_{\text{ant}}]^{2006}$ is the C_{ant} concentration rescaled to 2006 using the C_{ant} increase rate of 1.69% [Steinfeld et al., 2009]. PW: Polar Water; DSOW: Denmark Strait Overflow Water; ISOW: Iceland-Scotland Overflow Water; ENACW: Eastern North Atlantic Central Water; MNACW: Modified North Atlantic Central Water; NIIW: North-Iceland Irminger Water.

Water mass	Volume transport ($Sv=10^6 \text{ m}^3 \text{ s}^{-1}$)	ρ (kg m^{-3})	[DIC] ($\mu\text{mol kg}^{-1}$)	$[C_{\text{ant}}]$ ($\mu\text{mol kg}^{-1}$)	$[C_{\text{ant}}]^{2006}$ ($\mu\text{mol kg}^{-1}$)
PW	-1.8 ± 0.2	1027.4	2114 ± 8	38 ± 1	40 ± 1
DSOW	-3 ± 1	1027.9	2148 ± 6	37 ± 2	39 ± 1
ISOW (1)	-3 ± 1	1028.0	2161 ± 4	29 ± 5	30 ± 1
ENACW (2)	3.9 ± 1	1027.3	2121 ± 20	50 ± 3	53 ± 1
MNACW (2)	3.9 ± 1	1027.4	2127 ± 22	47 ± 3	49 ± 1
NIIW (3)	0.8 ± 0.2	1027.6	2138 ± 3	48 ± 0	50 ± 0

- (1) Except for the volume transport, ISOW properties were estimated from the overflows properties through the Faroe-Shetland Channel (FSC) and the Iceland-Faroe Ridge (IFR) in Table 2 of Jeansson et al. (2011), weighted by their corresponding volume transport (Table 1 in Jeansson et al. (2011)).
- (2) Except for the volume transport, ENACW and MNACW properties correspond to Atlantic Water (AW) in Table 2 of Jeansson et al. (2011) flowing at Faroe-Shetland Channel (FSC) and Iceland-Faroe ridge (IFR), respectively.
- (3) Except for the volume transport, NIIW properties correspond to the Atlantic water (AW) flowing at Denmark Strait (DS) in Table 2 of Jeansson et al. (2011).