

Table 1. Abbreviation, Description, "Delta180" Forcing and Freshwater (FW) Forcing for All Model Runsa

| Model Run | Description | "Delta180" Forcing | FW Forcing |
|--------------|--|--------------------|------------------------|
| CONST-CTR | control run to study equilibration timescale | constant | no FW forcing |
| CONST-FW1ka | equilibration timescale for ~2,000 years AMOC shutdown | constant | 0.5 Sv for 1,000 years |
| CONST-FW2ka | equilibration timescale for ~3,000 years AMOC shutdown | constant | 0.5 Sv for 2,000 years |
| CONST-noAMOC | equilibration timescale for very weak AMOC | constant | 0.5 Sv for entire run |
| T1-CTR | control run to study propagation of Delta180 signal during Termination 1 | Delta180 stack | no FW forcing |
| T1-H1 | propagation of Delta180 including Heinrich event 1 | Delta180 stack | 0.5 Sv for 2,000 years |

aThe forcing for the passive tracer was applied over the first 100 m of the orange region depicted in Figure 1a. FW forcing was applied to the surface of the indicated region. The Delta180 data used for the time-varying forcing are shown in Figures 1b and 1c.