**Metadata S8**

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Exploring controls on the timing of the phytoplankton bloom in western Baffin Bay, Canadian Arctic

Journal name: Elementa: Science of the Anthropocene

* Description of:

**Data S8: Model output generated using CGRF (Smith et al., 2014, https:doi.org/10.1002/qj.2194). For this study, data was selected for the location of the Qikiqtarjuaq sea ice camp 2016 (67.4797°N,-63.7895°E) and for the year 2016.**

The outputs were used as forcing fields for MITgcm. The code that generated the file 1D\_GDPS\_qsw\_y2016.nc is not publicly available.

* File:
  + **1D\_GDPS\_qsw\_y2016.nc** is model output for 2016. The value of the variable at the Qikiqtarjuaq location is at indices (j=1, i=1) meaning centre of grid point. Variables:
    - **qsw**: hourly downwelling shortwave radiation just above surface in energy units (Es(z=0+,SW), in W m-2).