

Criteria for GEOTRACES Compliant Data

Revised by the Scientific Steering Committee (SSC) in March 2025

The following information outlines to investigators how a dataset may be given GEOTRACES 'compliant' status, which would permit the data to be included in the GEOTRACES database and data products.

In principle, compliant data concerns measurements of one or more GEOTRACES parameters on a completed cruise not designated as a GEOTRACES section or process study.

To be established as a compliant dataset, the following conditions must all be met:

1. The measurements should be of a trace element or isotope relevant to the GEOTRACES programme, including, but not limited to, the key parameters (<https://www.geotraces.org/geotraces-key-parameters/>).
2. The dataset must be provided with adequate hydrographic data to interpret the compliant dataset. These include at least temperature and salinity, and, preferably, nutrients and oxygen. Collection of CTD and other data that aid in interpreting compliant datasets should follow GO-SHIP guidelines on how to produce good-quality hydrographic data: <http://www.go-ship.org/HydroMan.html>
3. Each dataset must have passed the intercalibration process relevant for that particular parameter (<https://www.geotraces.org/intercalibration-procedures/>), see also the GEOTRACES 'cookbook': <https://www.geotraces.org/methods-cookbook/>
Specifically:
 - An intercalibration report should be submitted to the Standards and Intercalibration Committee using a template generated by registering the dataset with the GEOTRACES DOoR (an example of an intercalibration template properly filled in is available at the following GEOTRACES webpage: <https://www.geotraces.org/intercalibration-report/>).
 - CTD sensor data do not need to be intercalibrated. Nutrient data need to be intercalibrated.
4. GEOTRACES Data Management protocols must be followed. Specifically:
 - A cruise form must be completed and supplied to GDAC. The cruise form template is available at: <https://www.bodc.ac.uk/geotraces/cruises/documentation/>
 - Registration of ancillary data into the GEOTRACES Data for Oceanic Research (DOoR) portal including hydrography at bottle firing and nutrient parameters (see criteria ii) and submission of downcast profiles to GDAC.
 - Submission of data and metadata for all datasets, including ancillary data, to the PI's national data centre (for American, French, Dutch and Chinese researchers) or to GDAC (geotraces.dac@bodc.ac.uk) in a timely manner, and no more than two years after the analysis of samples. The use of the templates available in DOoR is strongly recommended.
 - Permit public access to the data (this permission should be explicitly granted by data providers through the DOoR portal in Step 6).

Process to seek endorsement:

A flowchart to guide project leader(s) through the endorsement process is available here: <https://www.geotraces.org/flowchart/>

To start the process of establishing a given dataset as compliant data, the investigator of the dataset concerned should begin by submitting a completed cruise form to the GEOTRACES Data Assembly Centre (GDAC) for addition of the cruise in the GEOTRACES Data for Ocean Research portal (DOoR, <https://geotraces-portal.sedoo.fr/pi/>). The investigator should then register the dataset in DOoR and generate the templates for an intercalibration report and for data submission. The completed intercalibration report should be submitted to the GEOTRACES Standards and Intercalibration Committee using the DOoR and, in parallel, the data should be submitted to the appropriate data centre. If the report is approved, the S&I Committee will submit their recommendation concerning the given dataset to the GEOTRACES International Project Office (ipo@geotraces.org) to seek approval by the Scientific Steering Committee (SSC). The SSC will either make decisions during the annual SSC meeting or by email for those proposals arriving out of cycle (i.e., those that require approval prior to the next SSC meeting).