

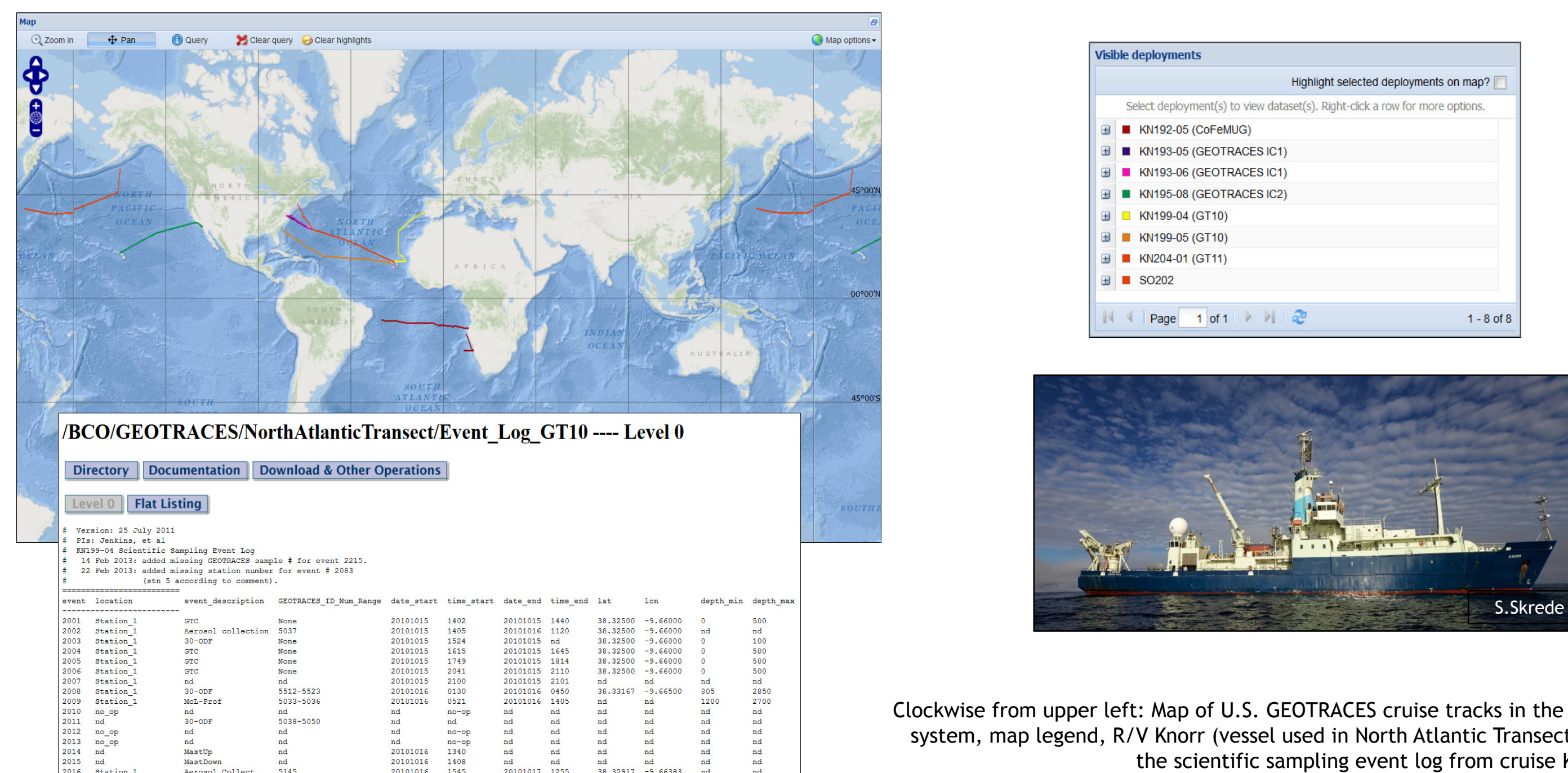
Shannon M. Rauch, Molly D. Allison, Cynthia L. Chandler, Stephen R. Gegg, and Robert C. Groman
Woods Hole Oceanographic Institution, Woods Hole, MA

Abstract

The U.S. GEOTRACES program involves dozens of investigators, from multiple institutions, with expertise in various marine trace elements and their isotopes (TEIs). Good data management and sharing practices are essential for the success of such a large-scale, collaborative research effort. The Biological and Chemical Oceanography Data Management Office (BCO-DMO), serving as the U.S. GEOTRACES Data Assembly Center (DAC), is one resource that facilitates the management and sharing of GEOTRACES data. The BCO-DMO data managers work closely with contributing investigators to ensure the quality and completeness of data and metadata before transferring the data to the GEOTRACES International DAC at the British Oceanographic Data Center (BODC). BCO-DMO currently serves TEI and related environmental data from the GEOTRACES Intercalibration cruises, the North Atlantic Transect cruises, and from the GEOTRACES-related project “Cobalt, Iron and Micro-organisms from the Upwelling zone to the Gyre” (CoFeMUG). This presentation will highlight TEI data managed by BCO-DMO as well as the tools and features that aid in data discovery, access, and visualization.

GEOTRACES Cruise Information at BCO-DMO

Cruise tracks, cruise reports, and event logs are available from 8 U.S. GEOTRACES and GEOTRACES-related cruises.

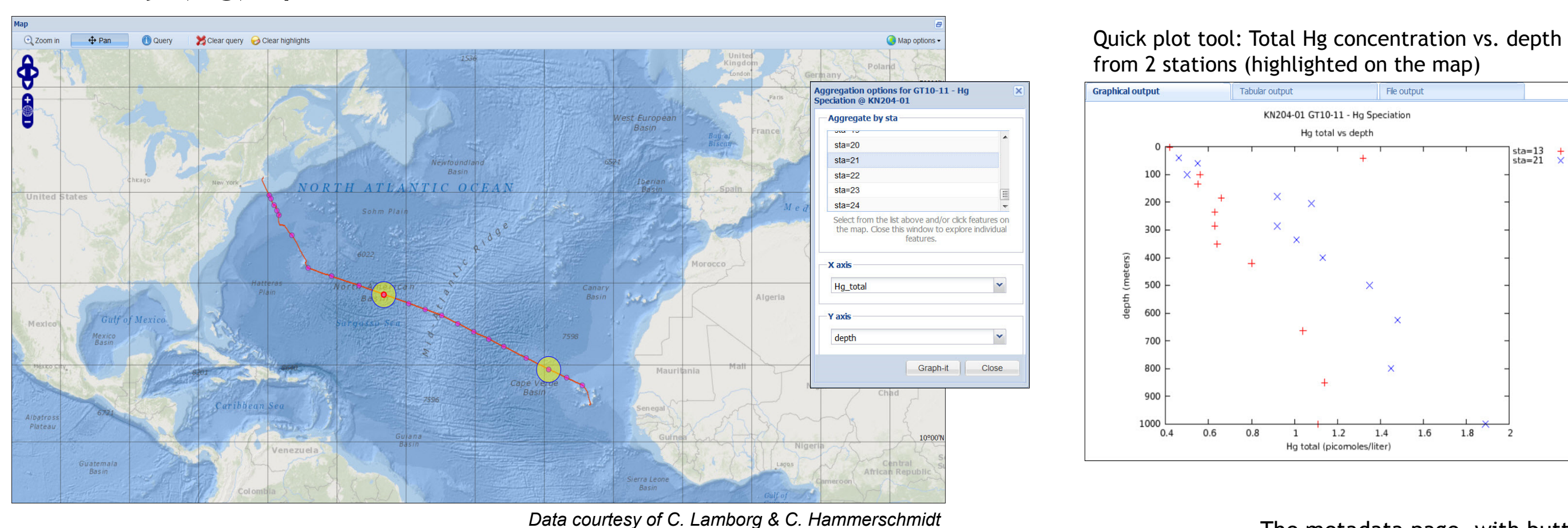


Acknowledgements: BCO-DMO is funded by the National Science Foundation. We acknowledge the work done by all of the investigators who contribute their data to BCO-DMO and the data managers who work to make those data available, including Nancy Copley, Danie Kinkade, and Terry McKee (Woods Hole Oceanographic Institution). The user interfaces to the BCO-DMO data system were developed in collaboration with Julie Allen and Katherine Joyce (WHOI) and BCO-DMO programmer Adam Shepherd. The geospatial interface to the BCO-DMO data system was developed in collaboration with Charlton Gavarnie (Second Creek Consulting, LLC).

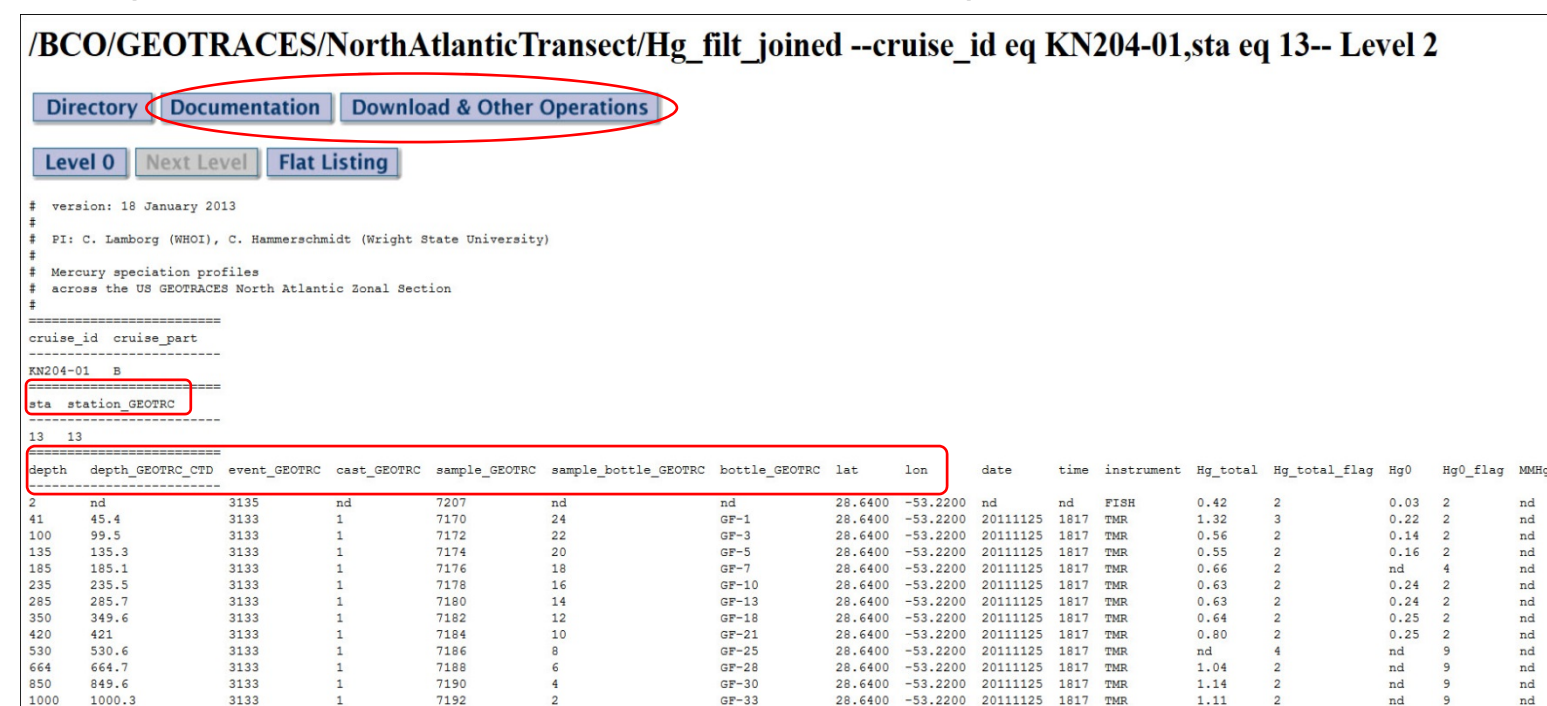
Accessing and Visualizing GEOTRACES Data

More than 80 U.S. GEOTRACES Trace Element and Isotope datasets are available at BCO-DMO*.

Mercury (Hg) Speciation data from KN204-01

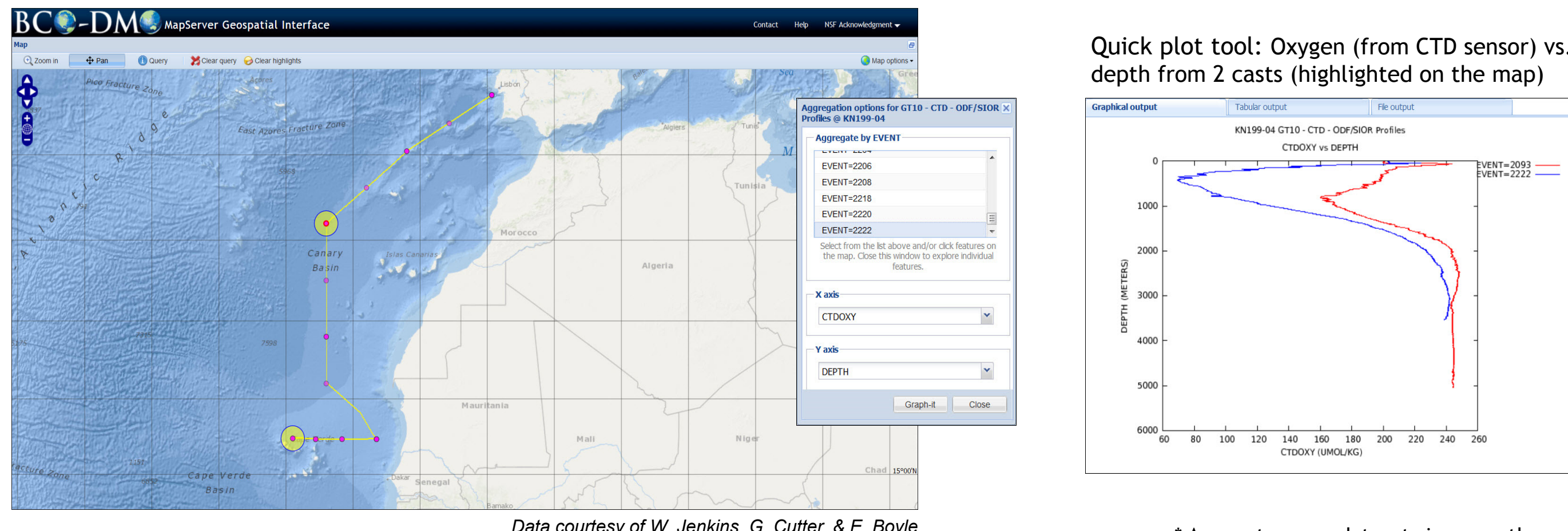


The data page, with standardized parameter names and quick access to documentation and download options



Supporting hydrography data (CTD and Niskin/Go-FLO bottles) are also available.

CTD Profiles from KN199-04



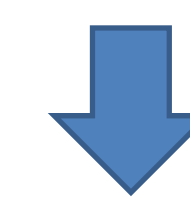
* Access to some datasets is currently restricted to GEOTRACES investigators only until the release of the GEOTRACES Intermediate Data Product.

The Process

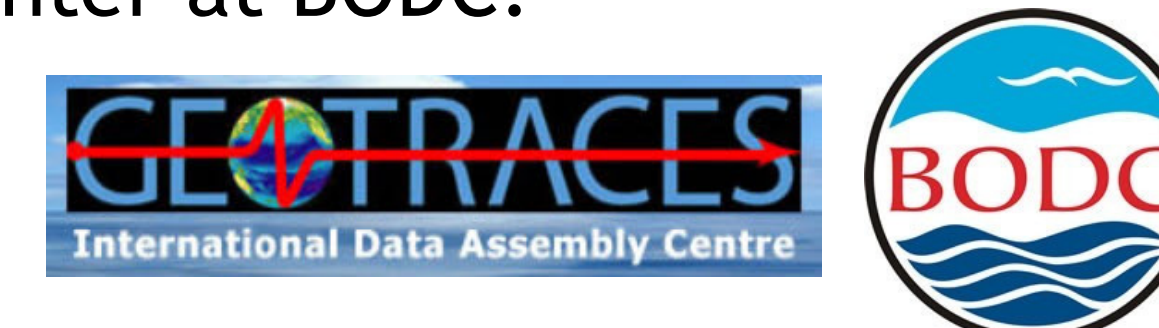
Data are collected and analyzed by U.S. GEOTRACES investigators.



Data are submitted to BCO-DMO. Data are then quality checked and reviewed, and made available online.



Data and metadata are contributed to the International GEOTRACES Data Assembly Center at BODC.



BCO-DMO Data Management

BCO-DMO data managers work with contributing investigators to ensure completeness of data and metadata.

- Each dataset was checked for GEOTRACES sample numbers, which are key for connecting datasets.
- Whenever possible, latitude, longitude, depth, pressure, station, cast, event, and bottle numbers were added.
- Parameter names were standardized for consistency across all datasets.
- Sufficient documentation is available to support use and re-use.

website: www.bco-dmo.org
email: info@bco-dmo.org

