

JAMSTEC core samples are open to after-moratorium requests

Takayuki Tomiyama^{1*}, Hideaki Machiyama¹, Wonn Soh¹

¹KOCHI/JAMSTEC

Marine core samples are cylindrical-shaped sections of subseafloor sediments/rocks collected with various coring techniques such as piston coring and seafloor drilling. Scientific marine coring is generally operated to study the dynamic system of seafloor, and the history of earth's environment and ecosystem. Because marine core samples attract a wide variety of scientific interests, it is important for geosciences that they are accessible to many researchers and educators.

Besides being an implementing organization of the Integrated Ocean Drilling Program (IODP), which is one of the largest sources of marine core samples, Japan Agency for Marine-Earth Science and Technology (JAMSTEC) has been collecting marine core samples using JAMSTEC research vessels. Since 2008, these core samples have been also provided for general scientific or educational purposes, after 2 years of moratorium period have passed since collection.

Domestic/foreign researchers and educators can use the JAMSTEC core samples, without depending on the specific purposes of the research cruises that collected these samples. Researchers can use these samples for supportive experiments/observations for their own project, or carry out further studies inspired by literatures using the same samples described in the literatures. Educators and instructors can teach their students and trainees by practice observations and experiments using real core samples. Keeping archive samples and organized databases provides chances for reanalyzing and retesting, which will ensure the reliability of evidence-based geosciences.

Currently, ~3500 sections of the JAMSTEC core samples are stored at the Kochi Core Center (KCC), and are managed by the JAMSTEC core sample curators. These samples and associated data are being organized and made open to public. Core samples acquired before 2008, including piston core samples from various sites in the Pacific Ocean and Japan Sea, and drilled core samples recovered during shakedown cruises of "D/V Chikyu" (CK05-04 and CK06-06; off Shimokita Peninsula) are already available for requesters. This year, core samples collected in 2008, which includes core samples taken by KR08-10 (off Sanriku; Japan Trench), MR08-06_Leg2 (Eastern South Pacific ~ off Chile), etc., will be added to the list of open core samples. Under the current JAMSTEC procedures for data and sample handling which inured in 2008, these "new" core samples and associated data have been kept well organized during the moratorium period. Researchers and educators can access the curatorial information at the "JAMSTEC Core Sample Curation" website[1], which contains sample request forms, a link to sample search system and lists of associated databases[2-4]. Requesters can select their samples based on online data, such as visual core descriptions, photo images, physical properties, etc., and submit sample requests by E-mail. The curators will discuss with requesters on their sampling plan and sample usage, and provide scientific supports to satisfy the requesters' research and education plan.

[1] "JAMSTEC Core Sample Curation" http://www.jamstec.go.jp/kochi/jc_curation/e/

[2] "JAMSTEC Core Data Site" <http://www.jamstec.go.jp/coredata/e/>

[3] "JAMSTEC Data Search Portal" http://www.jamstec.go.jp/dataportal/index_eng.html

[4] "JAMSTEC Data Site for Research Cruises" <http://www.jamstec.go.jp/cruisedata/e/>