

Sampling Kits for Low Level Mercury Analysis by EPA Method 1631

Memorandum

Low Level Mercury Analysis by EPA Method 1631 requires using clean techniques to avoid contamination in both the field and laboratory. The Metals Unit prepares sample containers in a class 1000 clean room for sample collection. Each container is assigned a number for tracking and 5% of the containers are checked for Hg contamination. We are currently using a 500 ml pre-cleaned glass bottle that is certified clean by the manufacturer. The bottles in the sampling kit are double-bagged in clean polyethylene bags and shipped in pre-cleaned coolers designated for Hg 1631 only. The samples should be returned to the laboratory in the same bags and coolers. The coolers are not to be used for the transport of high level samples. Field sampling teams are responsible for using the sample collection and handling procedures outlined in EPA Method 1669 - *Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels*.

Sampling Kits

It is the sampler's responsibility to order sampling kits with sufficient supplies for each sampling location. Order forms may be obtained from the Water Sciences Section website at the link below.

<http://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page>

The forms are located under the Inorganic Chemistry Branch (on right of page) then under "Supplies, Fees & Assistance". **Under Supplies for Sample Collection**, go down to "The SUPPLIES ORDER FORM can be accessed here in Excel and PDF formats". Please complete the form and email it to denr.dwq.mercurykit@lists.ncmail.net. A separate form should be completed when additional supplies and emailed to ChemLabOrders@lists.ncmail.net. Mercury sample kits should be ordered 1 week in advance to allow for preparation and shipping. Kits should not be stored for an extended period of time and should be ordered as needed.

A sample kit for a single location will include one empty bottle to receive mercury free water for the field blank and one bottle for the sample which will contain the mercury free water to be poured into the empty bottle to serve as the field blank. A sample kit for two locations will include two empty bottles and two bottles containing mercury free water. A sample kit for a single location requiring field duplication will include two empty bottles and one bottle containing mercury free water.

Water Sciences Section
Inorganic Chemistry Branch
Metals Unit

Sample Bottles

Each sample bottle has a unique ID for tracking. Please record this number on the field sheet and remember that separate field sheets must be completed for the samples and field blanks. The use of green bottle tags are not necessary. Field sheets should be placed on the outside of the cooler inside the plastic bag on top.

Sample Preservation

No field preservation is necessary and samples can be held 28 days prior to preservation at the laboratory. However, samples should be tightly capped and shipped to the laboratory as soon as possible to prevent contamination. Please also remember to check the sample submittal time and date restrictions on the Laboratory Section website. Samples must be shipped **without ice** in the coolers designated for Hg 1631 sampling with the cooler lid taped shut.

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