

NORTH CAROLINA DENR/DWQ WASTEWATER/GROUNDWATER LABORATORY CERTIFICATION

MEMORANDUM

DATE: August 18, 2004

TO: All labs certified for EPA Method 1631

FROM: James W. Meyer

SUBJECT: Preservation

There appears to be confusion about how the samples are to be preserved and when to preserve them. The letter from Gary Bennett of EPA Region IV seems to give the impression that if the BrCl is added to the original collection bottle, that samples do not need to be preserved further. In researching this issue it becomes clear that Mr. Bennett's letter is being misinterpreted.

The Method clearly states in Section 8.5.1 that "Samples must be either preserved or analyzed within 48 hours of collection. If a sample is oxidized in the sample bottle, the time to preservation can be extended to 28 days."

Note 17 referred to in the letter states that "Samples collected for the determination of trace level mercury using EPA Method 1631 must be collected in tightly-capped fluoropolymer or glass bottles and preserved with BrCl or HCl solution within 48 hours of sample collection. Samples for dissolved trace level mercury must be filtered in a clean area in the field or in the laboratory prior to preservation. Samples that have been preserved for determination of total or dissolved trace level mercury must be analyzed within 90 days of sample collection."

The determination of this office is that the oxidation process with BrCl to delay preservation must begin at the time of collection. Hence, the collection bottle must contain the BrCl at time of collection, the BrCl added to the bottle immediately upon collection or the samples must be shipped immediately to the lab and the BrCl added within 48 hours of collection. The lab then has 28 days in which to complete the preservation. If this process is delayed for more than 48 hours, the samples must be discarded or qualified as not having met preservation and/or holding times and this office must be notified in writing of the non-compliance.