



United States Department of the Interior

U.S. GEOLOGICAL SURVEY

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IN REPLY REFER TO:

NATIONAL WATER QUALITY LABORATORY TECHNICAL MEMORANDUM 1996.01

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To: Assistant Chief Hydrologist for Technical Support
Regional Hydrologists
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Assistant Chief, Office of Water Quality
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QA Manager, Yucca Mountain Project
Chief, Branch of Technical Development & Quality Systems
Employees, National Water Quality Laboratory

From: Peter F. Rogerson, Chief
National Water Quality Laboratory
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Subject: Guidelines for Labeling 40-mL Volatiles Sample Vials

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Revision: None

Purpose

The Volatiles Unit in the Organics Program is experiencing difficulty with volatile organic compound (VOC) sample processing. In particular, VOC vials are jamming in autosamplers due to improper taping of vials. In order to maintain productivity and data quality, the National Water Quality Laboratory (NWQL) requests that all submitters of VOC vials use proper labeling techniques.

Background

For the past 2 years, VOC analysis has benefitted from a new autosampler. This device minimizes contamination and variability by refrigerating all samples prior to analysis and by removing the sample aliquot under positive pressure without exposure to ambient laboratory air. This change in Standard Operating Procedure (SOP) has resulted in improvements to both precision and recovery for many results.

However, these autosamplers have stringent size restrictions for handling VOC vials, and vials that are too bulky will jam the autosampler and stop the analysis. Typically, any tape on the VOC vial, including tape around the top of the vial or tape around the vial label, will jam the autosampler. In addition, any label that overlaps on the vial or that leaves a tag end sticking out from the vial will jam the autosampler.

When VOC analysts discover vials with tape or oversized labels, they must remove the tape or oversized label with a razor blade before loading the autosampler. This has resulted in several cuts, including one trip to the local hospital. Even after tape is removed, the sticky residue can jam the autosamplers.

Guidelines

Acceptable labels for VOC vials must be limited to:

1. The self-adhesive labels supplied with the 40-mL VOC vials, or
2. Other self-adhesive preprinted labels that fit ONLY ONCE around the body of the vial with NO overlap.

Please use a waterproof pen to mark the vials to prevent smearing--the standard government issue black ball-point pen works very well.

Unacceptable labels include:

1. Clear tape wrapped over any kind of label to protect the label.
2. Tape of any kind used as a label, used to cover the neck of the vial, or used to protect the label from smearing--including electrical tape, mailing tape, duct tape, or any other kind of tape.
3. Any label that is too big for the 40-mL VOC vial and overlaps itself or that creates a tab that sticks out from the vial.

The NWQL thanks you for working with us to keep down costs and to maintain productivity. For further information please contact Brooke Connor (BFCCONNOR) at (303)-467-8170.

Impact on database: None

Supersedes: None

Key Words: VOC, Volatiles, Autosampler, Tape, Labels

Distribution: See above plus the continua USGS.labnews, .waterquality; WRD Secretaries; and Project Offices; <http://wwwnwql.cr.usgs.gov/>