PPC 9441.1992(19)

CLARIFICATION OF PRESERVATION TECHNIQUES FOR VOLATILE ORGANIC ANALYSIS

United States Environmental Protection Agency

July 7, 1992

Ms. Sara C. Brothers
Operations Manager, New Mexico
Groundwater Technology, Inc.
2501 Yale Boulevard, S.E., Suite 204
Albuquerque, New Mexico 87106

Dear Ms. Brothers:

This letter is in response to your June 24, 1992, "Request for Clarification of Preservation Techniques for Volatile Organic Analysis in accordance with EPA SW-846 Methods 8010/8020 and 8240". I am limiting this response only to water samples to be analyzed under RCRA using the SW-846 Methods (5030/8010/8020 and 8240) listed in your letter. Questions concerning the Office of Water Methods 601/602 and 624 need to be directed to:

Ms. Nancy Ulmer
Environmental Monitoring Systems
Laboratory
26 W. Martin Luther King Blvd.
Cincinnati, Ohio 45628.

In the RCRA Program the recommended preservation procedure for water samples containing volatile organic analytes is acidification to a Ph less than 2 using either a mineral acid (e.g. hydrochloric acid) or solid sodium bisulfate (NaHSO4). These recommended preservation procedures can be found in the appropriate Holding Times and Preservation Tables in Chapter Two and Chapter Four of SW-846.

We do not recommend the use of mercuric chloride as a preservative for RCRA samples. If the mercury concentration of spent laboratory water samples exceeds 0.2 mg/L, these samples must be managed as a hazardous waste which exhibits the RCRA Toxicity Characteristic. On the other hand, acid-preserved spent laboratory

water samples which do not contain hazardous constituents can simply be neutralized and discarded by pouring them down the drain.

I am enclosing a copy of a recent paper published by the U.S. Geological Survey in Environmental Science & Technology on this issue. I hope that you find it useful. If I can be of any further assistance, please call me at (202) 260-7459.

attachment

Sincerely,
Barry Lesnik, Chemist
Methods Section (OS 331)
RCRA Organic Methods Program Manager