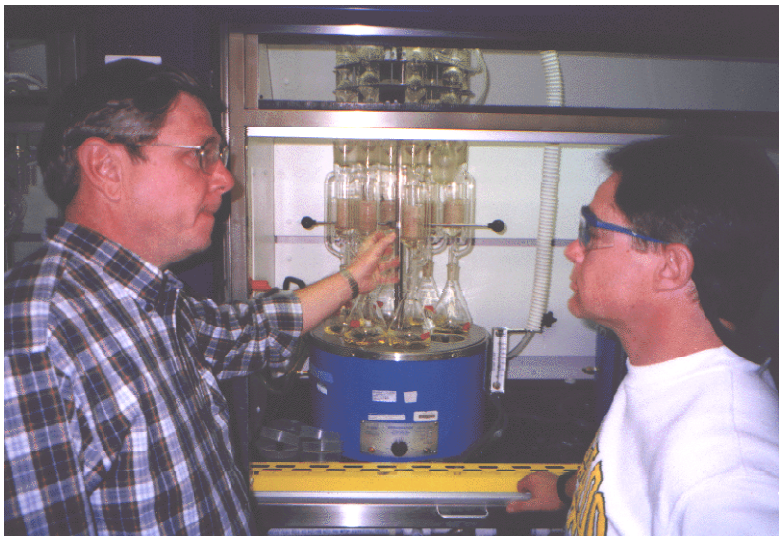
NATIONAL WATER QUALITY LABORATORY
NEWSLETTER
U.S. DEPARTMENT OF THE INTERIOR U.S. GEOLOGICAL SURVEY
Volume 9 Number 2 April 2001

Mohrman attends leadership training course in Virginia

Greg Mohrman, NWQL chief, spent the month of February attending The Federal Executive Institute's "Leadership for a Democratic Society" program, in Charlottesville, Virginia. The program assists agencies to develop their career executive corps by linking individual development to improved agency performance.

The Federal Executive Institute (FEI) was set up by President Lyndon Johnson in 1968 because "the critical importance of our Federal program demands the highest level of talent in our career leadership." He established the FEI by Executive Order "to improve the quality of government for the American people," and he asked agency heads to send "your most talented and promising people to the programs it will offer."

The FEI has focused on the development of the individual executive by creating an interagency residential learning center with a curriculum that addresses broad perspectives basic to effective performance in the senior executive service.



TISSUE LAB- Tom Leiker (left), chemist, and Dan Bottinelli, physical science technician, discuss method validation for preparing tissue samples. They are eliminating dichloromethane from the method and replacing it with an acetone-hexane mixture for use in the extraction process. Dichloromethane is a potential long-term health hazard for laboratory staff.

Water-quality monitoring topic for Colorado meeting

Four NWQL chemists spoke at a conference designed to share local, State, and Federal perspectives and experiences regarding water-quality monitoring. The meeting was titled "The Future of Water Quality Monitoring in Colorado: Collaboration, Cooperation, and Communication," March 15 and 16, in Golden, Colo.

The keynote speaker was Robert Hirsch, Associate Director of Water, U.S. Geological Survey. Talks on methods development were presented by Robert Green, Chief of the Methods Research and Development Program, and by Charles Patton, Mark Sandstrom, and Edward Furlong, research chemists. The joint conference was organized by the American Water Resources Association (Colorado Section) and the Colorado Water Quality Monitoring Council.

USDA, State labs visit NWQL as part of pilot program to start analyzing drinking water

The Congress has funded the U.S. Department of Agriculture (USDA) to begin a pilot program to analyze drinking water for pesticides. The USDA plans to set up labs near two large population centers, New York City and San Francisco.

The USDA was aware of U.S. Geological Survey methods for determining pesticides and asked the State labs to place those methods online. In that connection, the USGS and the U.S. Environmental Protection Agency coordinated a visit for those two State labs to NWQL. The visit was organized by Bob Green, chief of the Methods Research and Development Program. Laboratory staff briefed the visitors regarding Survey pesticide methods and provided tours and detailed technical discussions on January 11 and 12. (See accompanying photo.)

Green said that the "USDA folks went away with an appreciation for the task ahead of them. With the information they gained while at the NWQL, the State labs should be in the best possible position to implement the USGS methods successfully.

WORKING OUT THE LOGISTICS -Members of a delegation of State labs and the U.S. Department of Agriculture visited the NWQL for a briefing as they evaluate the potential use of USGS methods in their own laboratories in New York and California. Participating in the tour (from left to right) are the following: Debbie Oglesby, Roger Pollman, and John Meola, New York State Department of Agriculture; Patricia Moe (in center, holding books), U.S. Department of Agriculture; Lisa Zimmerman, volunteer research associate from the USGS District Office in Lawrence, Kansas; Nirmal K. Saini, Soghra Begum, and Ruei-ching Hsu, California Department of Food and Agriculture; and Max Stroppel, NWQL chemist who served as one of the tour guides. In the far background (partially hidden) are three NWQL staffers: Jeff Stewart, Bob Green, and Bruce Anderson.

Correspondence

Wow, Bill [Foreman, not Hickok]-I just saw your "Sources of Quality Control and Other Performance Information for Organic Chemisgtry Methods of the USGS National Water Quality Laboratory" at URL http://wwwnwql.cr.usgs.gov/Public/qc_foreman.html. Just wanted to say THANKS-- what a great resource.

Lisa H. Nowell
Chemist, Pesticides National Synthesis Project
National Water-Quality Assessment Program,
USGS
Sacramento, Calif.

KEYNOTE ADDRESS-Tim Miller, chief, National Water-Quality Assessment Program, cited NWQL for its cooperation and teamwork with NAWQA in an address and award/plaque presentation to the staff February 5 at a Town Hall meeting at the Denver Federal Center. Miller said the Laboratory's low-level pesticide methods have helped to provide USGS with recognition as a leader among Federal agencies in producing environmental data. He was joined in remarks by Janice Ward, acting chief of the Office of Water Quality.

Frequently Asked Questions

Notification of changes in mercury preservative and in method; NWQL Policy Memo 2001.01

The National Water Quality Laboratory's (NWQL) Policy Memorandum No. 2001.01, which was distributed by e-mail to the Water Resources Division on 23 January 2001, announces a change in the preservative for mercury samples and an upcoming change in the analytical method. This change was effective 1 April 2001. The following FAQs answer many of the initial concerns of NWQL's customers:

Why are the NWQL and Ocala Water Quality and Research Laboratory (OWQRL) changing the preservative used for mercury?
The Department of Transportation (DOT) recently updated regulations on the permissible levels of hazardous materials that can be shipped by common carrier. Currently, mercury samples are preserved with concentrated nitric acid and potassium dichromate. The regulations required a change in USGS methods because the U.S. Postal Service and United Parcel Service no longer accept water samples with these preservatives. This change eliminates the need for dichromate, a hazardous material.

How can I ship samples between now and 1 April 2001?
The U.S. Postal Service and United Parcel Service no longer accept water samples containing concentrated nitric acid and potassium dichromate preservatives. However, Federal Express will continue to accept and deliver samples with these preservatives, at least for a few months, as long as they are packed according to the guidelines in NWQL Technical Memorandum 95.04.

When will the changes in analytical method for mercury be implemented?
The NWQL will implement U.S. Environmental Protection Agency Method 1631, with modification, for routine use on 1 April 2001. The method modification will allow continued use of the 250-mL glass bottle, but eliminates a sample concentration step. This analytical method requires samples to be preserved with hydrochloric acid.

Is the new analytical method for mercury at the NWQL as sensitive as the previous method?
Preliminary results indicate that the NWQL will be able to report results at about 5 ng/L as compared to 120 ng/L, the current (2001) long-term method detection level for lab code 226.

When will changes in lab codes and detection levels be announced?
Changes to NWQL lab codes and in detection levels will be discussed in a forthcoming tech memo issued by the NWQL. The OWQRL will announce changes to its lab codes and detection levels as needed.

When must Districts report current stocks of potassium dichromate in acid ampoules to OWQRL?
Each District Office should inventory its stock of potassium dichromate in acid ampoules and send the results to Dan Stanley (dstanley@usgs.gov), the OWQRL safety officer, as soon as possible. He will compile an inventory of the potassium dichromate in acid stocks so that a decision can be made on potential reuse.

What do I do with my old potassium dichromate in acid ampoules?
Dan Stanley, the OWQRL Safety Officer, will compile an inventory of the potassium dichromate in acid stocks. Customers will be notified of any decision made on potential reuse and disposition.

Will the new analytical method for mercury be more expensive than the old?
The price will not change in FY2001. The NWQL and OWQRL will charge the same price for the new analytical method as had been charged for the old one.

What new field supplies will I need? Where can I get them?
The new preservative is 2 mL of 6N ultrapure hydrochloric acid in a polypropylene vial. The OWQRL will make the procurement and then fill orders for USGS District Offices. The new preservative was slated to be listed on 1Stop Shopping by 1 March 2001.

The Stock Number and Description for 1Stop is:

Q446FLD
Acid, Vial (PP), HCL, 6N (1:1), 2 mL, Omni Trace, Mercury Preservative Box (24).
Price: $40.00 per box of 24.

Questions related to the availability of the new hydrochloric acid preservative should be directed to John McKenzie (e-mail: jcmckenz@usgs.gov; voice: 352-237-5514) at OWQRL. If you have immediate needs for the potassium dichromate in acid preservative, please contact John because the supplies available from OWQRL are low and there are no plans to restock.

Where can I get help or additional information?
For questions about the new NWQL mercury method, please contact LabHelp (e-mail: labhelp@usgs.gov; voice: 866-ASK-NWQL). Information about the OWQRL mercury method is available from Bill d'Angelo (e-mail: wdangelo@usgs.gov; voice: 352-237-5514).

Allison Brigham and NWQL/OWQRL Joint Project Team

Tom Leiker to present Lake Mead talk at GD Colloquium, May 3

Tom Leiker, chemist in the Methods Research and Development Program, is scheduled to take part in the Geologic Division Colloquium series May 3 in the Foord Conference Room B1409, Building 20, at the Denver Federal Center. The presentation is titled, "Lake Mead Studies 1995-2000: An Assessment of Reproductive Function and Potential Endocrine Disruption in Fish." The talk is set for 1:30 p.m.

Tom's research is a collaborative effort among the U.S. Fish and Wildlife Service, National Parks Service, Bureau of Reclamation, University of Nevada at Las Vegas, Nevada Division of Wildlife, and the U.S. Geological Survey.

Publications in the news (NWQL authors in boldface)

Inkpen, E.L., Tesoriero, A.J., Ebbert, J.C., Silva, S.R., and **Sandstrom, M.W.**, 2000, Ground-water quality in regional, agricultural, and urban settings in the Puget Sound basin, Washington and British Columbia, 1996-1998: U.S. Geological Survey Water-Resources Investigations Report 00-4100, 66 p.

Lopes, T.J., and **Furlong, E.T.**, in press, Occurrence and potential adverse effects of semivolatile organic compounds in streambed sediment, United States, 1992-95: Environmental Toxicology and Chemistry, v. 20, no. 4, April 2001, p. 727-737.

Wong, C.S., Garrison, A.W., and **Foreman, W.T.**, 2001, Enantiomeric composition of chiral polychlorinated biphenyl atropisomers in aquatic bed sediment: Environmental Science & Technology, v. 35, no. 1, p. 33-39.

DEFINING CUSTOMER EXPECTATIONS-The Business Development Team has been created to improve customer satisfaction with NWQL services, develop effective communication, consolidate services, and improve focus and consistency. The team is especially interested in reducing response time for problem resolution. Team members (front, left to right): Pamela Puleo-Aitken, Gary Cottrell (recently named team chief), and Kathy Bryant; (second row) Patricia Alex, Jon Raese, Allison Brigham, and Steve Glodt.

THE WAY THINGS WORK -Daniel Hippe (right), USGS water-quality specialist for the Northeast Region, recently was guided through the Laboratory by Merle Shockey, assistant chief. Visitors to the Denver region are invited to stop by NWQL to consult with the staff and tour the Lab.

Quality Systems and lab certification issues reviewed

The credibility of laboratory services typically are measured by examining the Quality Systems that are in place. Quality Systems include the following components: management structure; documentation of methods, standard operating procedures, training records, and data-evaluation procedures; successful participation in performance-testing studies administered by recognized authorities; and examination of laboratory operations by experts in Quality Systems. The NWQL has a comprehensive Quality System program in place.

The Branch of Quality Systems audited the NWQL in January 2000 to ensure that the services provided comply with general U.S. Geological Survey requirements as outlined in Office of Water Quality Tech Memo 98.03. However, many NWQL customers require "certification" by an external agency.

USGS District customers report that their cooperators ask if the NWQL is certified by the U.S. Environmental Protection Agency (USEPA). There is no simple answer to this question in that most States are responsible for laboratory certification. The NWQL is certified for the USEPA Drinking-Water program through the Colorado Department of Public Health and Environment (CDPHE). From March 5-7, 2001, that agency performed a drinking-water audit of the NWQL, and the lead auditor congratulated the Laboratory for having "a well-run operation." Several deficiencies were noted but are being corrected. An audit report with responses from the NWQL will be posted on the web site, probably in early June.

The USEPA has sponsored a National Environmental Laboratory Accreditation Conference (NELAC) since the early 1990s to promote a national standard for laboratory certification and audits. The NELAC process is also designed to promote interstate recognition of laboratory certification. The NWQL has participated in the NELAC process since 1995, and the Quality Systems have been redesigned to comply with the standards developed. In addition, NELAC has recruited Tom Maloney, NWQL quality assurance officer, to serve as the Federal Agency representative on the NELAC Board of Directors.

AN EYE FOR DETAIL-Barbara Wainman, chief of the USGS Office of Communications, was detailed to the Regional Hydrologist's office in Denver recently as part of her training program. She was briefed February 6 by Merle Shockey, assistant lab chief, prior to a tour of NWQL. Wainman manages the offices of congressional and public affairs, and is responsible for developing programs for outreach and communication.

Field supply certificates linked to 1Stop Shopping

A Joint Project Team (JPT) from the National Water Quality Laboratory (NWQL) and Ocala Water Quality and Research Laboratory (OWQRL) is addressing field-supply issues. The team has been improving web page communications to identify field-supply requirements for laboratory analyses and to link the quality-control (QC) certificates for supplies when placing orders.

Information Technology expertise-needed by the JPT to develop the desired systems-required coordination among several offices. Cheryl Nelson, Hydrologic Instrumentation Facility, Tim Boozer, OWQRL, and Sandy Turner, NWQL, have been working with the team to provide the web links needed on the OWQRL Catalog and NWQL network applications. Customers use these applications to search for the appropriate lab codes and schedules for their project work.

Although the required sample types are identified, there is no clear guidance on which supplies to use. The JPT plans to fix this problem by developing a system that links directly to 1Stop Shopping for the appropriate bottles, preservatives, and filters. Links to QC certificates will also be made. The new system should be ready this summer.

Progress, meanwhile, has been made on providing links to Supply QC Certificates on the 1Stop Shopping application. Cheryl Nelson has added a hot button titled "Organic and Inorganic Certificate Information" to the "Options" feature on the 1Stop Shopping Index.

GATEWAY TO THE EARTH–Karen Siderelis, the first geographic information officer (GIO) at the U.S. Geological Survey, visited the NWQL January 30 for a briefing and tour arranged by Sandy Turner, chief of the Information Technology Section. As GIO, Siderelis will create and implement a coordinated strategy for enabling access to the Survey's extensive data base of Earth and natural science information. The Gateway to the Earth vision aims to optimize the Survey's investment in information collected for the past 120 years.

Bennett moves into administrative post

The new administrative officer for the NWQL is Merilee Bennett. The posting was effective January 14. Merilee began her USGS career in Menlo Park, Calif., in 1971. She has worked for three Divisions (Administrative, Geologic, and Water Resources), in two Regions (Western and Central), and in the Headquarters Personnel Office, in Reston, Va. Her background ranges from personnel, program management, administration, to financial planning and budgeting.

Merilee enjoys reading and needlework as hobbies. She is married and has one son, Eric, who is serving in the Navy. Merilee says that she has enjoyed her career with the USGS and the opportunities for professional growth.

Newsletter Staff

Jon Raese, Editor
Diana Rime, Production Assistant

The National Water Quality Laboratory Newsletter, is published quarterly by the National Water Quality Laboratory, U.S. Geological Survey, Box 25046, MS-407, Denver Federal Center, Denver, CO 80225-0046. For copies, call Diana Rime (303) 236-3502 or send e-mail request to dcrime@usgs.gov.