

WATER QUALITY SAPPHIRE ROOM

11:30 am Effects Of Oxidation And Adsorption On Arsenic Removal In Iron-Removal Water Treatment Plants

*Thomas R. Holm, Groundwater Geochemist, Illinois
State Water Survey*

On-site and laboratory experiments using groundwater from four Illinois water treatment plants having wide ranges of key water quality parameters were performed to characterize concurrent As and Fe removal. The oxidants were air, hydrogen peroxide (H₂O₂), potassium permanganate (KMnO₄), and sodium hypochlorite (NaOCl). Both oxidation and adsorption had to be optimized for effective As removal. Aeration was ineffective both in oxidizing As(III) and removing soluble As. For both KMnO₄ and NaOCl, As removal greater than 90% was only achieved when the oxidant dose was sufficient to convert most of the As(III) to As(V) and the molar Fe:As ratio (the adsorbent to adsorbate ratio) was greater than 100. Both As(III) oxidation and soluble As removal were better for H₂O₂ than for aeration but not as good as for KMnO₄ or NaOCl. A chemical equilibrium model successfully reproduced the trends in As concentrations in a series of experiments.

Water for People Auction

The Annual Conference is fast approaching and we would like to encourage participation in the Silent Auction to raise funds for Water For People. The Water For People Committee will accept and appreciate any donations for this worthwhile cause. We are kindly asking that supporters donate items without their company logos on them. Logo items should be geared towards drawings/prizes at Exhibitors booths. Suggested donation items include:

- Sports memorabilia.
- Sporting event tickets.
- Electronic gadgets and hand tools.
- Golf, fishing and other sports equipment.
- Gift certificates from national retailers and restaurants.

All we ask is that the donation items have a value of \$25.00 or greater. We will also accept a gift of your time and talent for the auction, such as a day of fishing on your boat, painting a portrait, taking photographs, etc. We are looking for anything that helps the Water for People cause and gets you to participate!

The Auction schedule is as follows:

Tuesday, March 17th - your donated item is prominently displayed in your booth, if you're exhibiting, and bidding begins immediately. (Non-exhibiting donors' items will be prominently displayed Wednesday morning)

Wednesday, March 18th - your donated item is delivered to the auction area in the center of the Exhibit hall by 8:00 am

Wednesday, March 18th - the auction continues throughout the morning and will end promptly at 11:15 a.m. Items will be picked up and paid for immediately following the Silent Auction

Any questions, please do not hesitate to contact Barb Waddell at barb_wfp@yahoo.com, Jennifer McGlone at Jennifer.McGlone@aecom.com or Mike Simpson at mike@mesimpson.com.



To: All AWWA members, Conference Exhibitors and Water Industry People
From: Michael Simpson, WFP Chair
Date: December 15, 2008



The Annual Conference is fast approaching and it's time to encourage participation in the Silent Auction to raise funds for Water For People. The committee needs your support. Barb Waddell will be leading the Silent Auction effort at this year's conference. I know Barb, along with the rest of the Water For People Committee, will accept and appreciate anything that you would consider donating. We're suggesting items such as sports memorabilia and sporting event tickets, which are always popular. Electronic gadgets, golf equipment, fishing equipment and other sports related materials are a big hit with bidders, as well as tools and gift certificates from national retail/restaurant companies. All we ask is that the item you donate have a value of \$25.00 or greater. We will also accept a gift of your time and talent to auction off, such as a day of fishing on your boat or other talents like painting a portrait, taking photographs, anything that helps the cause and gets you to participate.

You can bring the item to the conference, but please notify us before February 28, 2009 that you are intending to participate. We will need the name of the donor, a description of the item, a digital photo (if possible) and the value of the item. Please e-mail the information to me at michael@mesimpson.com. For questions you can contact me at (800) 255-1521. All items submitted by February 28th will be featured on the Illinois Section AWWA website.

Thank you for considering participating in our Silent Auction event. Your donation will help the section raise the funds needed to benefit thousands of people in developing countries.

As always, we need volunteers to help with the Silent Auction and the 50/50 drawing so if you'd like to participate please let me, or Barb Waddell know.

Lack of access to one of life's most essential necessities compromises the livelihoods, the health and the future of impoverished people throughout the world. Without access to clean water, adequate sanitation and health education, no other developmental goals can be met. For more information and a better understanding go to the Water For People website at: <http://www.waterforpeople.org/>

Thanks to all for your continued support...

Illinois Section AWWA and IWEA
Water For People Committee