



*.....keeping watch on  
the industry*

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**Clear, clean and healthy water has long been promised by frac sand mining officials.**



**Residents living near or around frac sand mines have long expected clean water supplies for themselves and for their animals.**

**What looks like clean, clear water may not be free of heavy metals. A new study out of UW-Madison notes some concerns regarding microbially-mediated oxidation of trace element bearing sulfide minerals in the sandstones specifically in Trempealeau County, WI.**

**Read all about the current findings from investigators: Roden, Ginder-Vogel, Zambito and**

**Haas.**

<https://www.wri.wisc.edu/research/microbially-mediated-oxidation-of-trace-element-bearing-sulfide-minerals-in-sandstones-of-trempealeau-county-wi/>

**A Quote from the abstract is noted below:**

"The goal of our experiments is to obtain information on the rate of reaction of these sulfides with oxygen in both the presence and absence of natural groundwater microorganisms under (at least initially) circumneutral pH conditions. Although the central role of microorganisms in pyrite oxidation at low pH has been extensively studied in the context of acid mine/rock drainage generation (Schipper, 2004), the role of microorganisms in mediating pyrite oxidation at circumneutral pH is not well understood. Our recent work with microorganisms from other pyrite-bearing subsurface sediments (Percak-Dennett et al., 2017; Napieralski et al., 2018) has conclusively shown that chemolithotrophic bacteria (i.e. organisms that gain energy for growth from inorganic compounds) can accelerate neutral-pH aerobic oxidation of both synthetic and specimen pyrite up to 10-fold relative to abiotic controls."

Read the remainder of the abstract at the link noted above.

**It is important that people living around frac sand mines know what is in their water. Even though it may not be visible to the naked eye, heavy metals may be present. Be aware and become a citizen scientist to protect your family and your pets and other animals from what might be heavy metal excesses.**

**Vote: November 3!!!!**

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*Welcome to the Frac Sand Sentinel, a newsletter highlighting resource links, news media accounts, blog posts, correspondence, observations and opinions gathered regarding local actions on, and impacts of, the developing frac sand mining and processing industries.*

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**CHECK OUT THE WEBSITE: [CCC-WIS.COM](http://CCC-WIS.COM) and for additional information, [click here](#) for panoramic aerial views of frac sand mines, processing plants, and trans-load facilities. [FracTracker.org](http://FracTracker.org) is also an excellent source of information.**