



UT Permian Basin
College of Engineering

**Texas Water and Energy
Institute Virtual Water
Lecture Series**

**The University of Texas
Permian Basin**
Friday, April 30
10:00-11:30am CST
Virtual Link: [Link to Listen!](#)

Registration required!
Email twei-info@utpb.edu or call
(432) 552-3431

+ Presenting

**Topic: The Environmental
Implications of Produced Water
Recycling and Reuse**

ABSTRACT

The effective treatment of produced water represents one of the greatest opportunities to improve the environmental stewardship and operational efficiency of shale energy production. The reutilization of treated produced water can reduce the reliance on fresh water resources for hydraulic fracturing while simultaneously circumventing the need to dispose of these fluids into the subsurface, which has been associated with induced seismicity. Produced water from oil and gas development represents one of the most complex mixtures of biological, organic, and inorganic constituents known to man. Given this complexity, produced water can be particularly challenging to treat for specific recycling and reuse applications, which are often cost prohibitive compared to traditional sub-surface disposal. This presentation will address the biogeochemical composition of produced water from various shale energy basins, and the technologies required to remove different classes of contaminants.

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LECTURE SERIES



Water Lecture Series

Dr. Zacariah Hildenbrand

Research Professor, University of Texas at El Paso, Chemistry and Biochemistry Departments

ABOUT THE SPEAKER

Zacariah L. Hildenbrand is a partner of Medusa Analytical, sits on the Scientific Advisory Board of the Collaborative Laboratories for Environmental Analysis and Remediation (CLEAR), is a Director of the Curtis Mathes Corporation (OTC:TLED), and is a Research Professor at the University of Texas at El Paso. Dr. Hildenbrand's research has produced more than 60 peer-reviewed scientific journal articles and textbook chapters. Dr. Hildenbrand is regarded as an expert in point source attribution and has participated in some of the highest profile oil and gas contamination cases across the United States. Dr. Hildenbrand has also consulted several private sector clients on various water treatment and hydrocarbon capturing technologies.

Can't make it? [Register](#) and we will send you a recording afterward.