



# UIC | 2019 CONFERENCE

February 24-27, 2019  
Fort Worth, Texas  
Sheraton Fort Worth Hotel



# PRELIMINARY AGENDA

## Conference Partner



U.S. EPA, Office of Ground Water and Drinking Water

## Conference Sponsors

**SCS ENGINEERS**

Bronze Sponsor



GeoHydroLogicPro

Supporter

## Sunday, February 24, 2019

3:00 – 5:30

Registration

6:00 – 8:00

Welcome Reception – Hotel

## Monday, February 25, 2019

7:30 -5:00

Registration

7:30 – 8:30

Breakfast Buffet

8:30-10:00

Opening General Session

- **Mike Paque**, Executive Director, GWPC – Welcome
- **Dan Yates**, Associate Executive Director, GWPC – Conference Overview
- **Charles McGuire**, U.S. EPA, Region 6 (Invited)
- **Anita Thompkins**, U.S. EPA, Office of Groundwater & Drinking Water (Invited)

10:00 – 10:30

Morning Break

10:30-12:00

Regional Induced Seismicity Collaborative: Trends in Seismicity

Class III UIC Forum & Discussion

*Moderator: Michael Young, Bureau of Economic Geology, University of Texas*

*Moderator: Mary Musick, GWPC*

*“Lithospheric Structure and Seismicity Tendency of the Greater Permian Basin”*

*“USGS Study on Uranium Mining”*

*Katie Walton-Day, USGS (Invited)*

*Dino Huang, Ph.d., University of Texas, BEG*

*“Stabilization and Plume Management”*

*Fred Duffy, Texas Commission on Environmental Quality*

*“Fluid Management Practices and Relationships to Seismicity in Geological Provinces of the Mid-Continent”*

*(Continued)*

*Kyle Murray, Ph.D., University of Oklahoma*

	<p><i>"Overview of the History and Response to Induced Seismicity in Arkansas with Examples from Previous Case Studies"</i> Scott Ausbrooks, Arkansas Geological Survey</p> <p><i>"Kansas Seismic Monitoring and Responses: An Update"</i> Rex Buchanan, Kansas Geological Survey</p>	<p><i>Panel Discussion: "Groundwater Closure Requirements for Uranium Mining"</i></p> <ul style="list-style-type: none"> <li>• Fred Duffy, TCEQ</li> <li>• Lily Barkou, Wyoming Department of Environmental Quality, Water Quality Division</li> <li>• Amanda Jones, Nebraska Department of Environmental Quality</li> </ul>
12:00-1:30	<b>Lunch on your own</b>	
1:30 - 3:00	<b>Regulatory &amp; Industry Strategies to Mitigate Induced Seismicity</b>	<b>Aquifer Recharge</b>
	<p><i>Moderator: Michael Young, Bureau of Economic Geology, University of Texas</i></p> <p><i>"Operational Mitigation Strategies for Hydraulic Fracture Induced Seismicity"</i> Shawn Maxwell, Newfield</p> <p><i>"Operational Real-Time Induced Seismicity Risk Management"</i> Sepieh Karimi, Nanometrics – Seismic Monitoring Services</p> <p><i>"Updates on Seismic Mitigation Strategies"</i> Oklahoma Corporation Commission</p>	<p><i>Historic Analysis of ASR Operations in the US as of 2013</i> Chi Ho Sham</p> <p><i>"Managing Metals in ASR Cycle Tests"</i> Doug Laymon, P.G. , Collier Consulting</p>
3:00 – 3:30	<b>Break</b>	
3:30 – 5:00	<b>Class II &amp; VI UIC Forum &amp; Discussion</b>	<b>Class III &amp; V UIC Forum &amp; Discussion (Magnolia 1&amp;2)</b>
	<p>Moderator: Mike Nickolaus, GWPC</p> <p><i>"Challenges Facing Class II Disposal Well Operations in the Appalachian Basin"</i> Tom Tomastik, ALL Consulting</p> <p><i>"Implications for Class VI and Class II UIC Wells Based on CarbonSAFE Pre-Feasibility Projects"</i> Joel Sminchak, Batelle</p>	<p><i>Moderator: Lorrie Council, TCEQ</i></p> <p>(State and EPA Only)</p> <p><i>"State/EPA Dialogue – Comprehensive State Program Evaluations for Class V Programs"</i></p> <p>(Continued)</p>

*"Update on CO2 Project"*

**Leslie Savage**, Railroad Commission of Texas

**Topics of Discussion:**

- What should be included in an EPA Comprehensive State Program Evaluation for Class V?
- What should be considered for biosolids disposal by injection, taking into account the EPA Office of Inspector General Report 19-P-0002?
- How are States/DI programs notified of disposal of waste waters to groundwater under the Clean Water Act and how are discharges being assess for UIC requirements?
- Updates from states and EPA DI on issues/solutions for Class III uranium mining facility closures and abandonment
- Updates from states on ASR/MAR regulatory programs

6:00 – 8:00

**Networking Reception | Red River Ranch Stockyards (Event Center)**

*Casual Attire, Transportation Provided*

Join us for dinner, drinks and networking at the River Ranch Stockyards. Established in 1991 by Fort Worth natives Steve and Phillip Murrin, River Ranch Stockyards is reminiscent of the rustic retreat that greeted 1880's cattle drovers as "the last stop" before moving herds north along the Chisholm Trail.

The reception, held in the event center's Old Town Room, will allow guests to step back in time to old Fort Worth – the chapel, saloon, mercantile, and the town jail.



# Tuesday, February 26, 2019

7:30 – 5:00	Registration		
7:30 – 8:30	Breakfast Buffet		
8:30-10:00	State/EPA Forum	Industry Forum	
	<i>(State Regulatory and EPA attendance only)</i>	<ul style="list-style-type: none"> <li>• FracFocus API</li> <li>• RBDMS Business To Government</li> <li>• Injection Data Submittals</li> </ul>	
10:00 – 10:30	Break		
10:30 – 12:00	Produced Water: Research	Class I UIC Forum & Discussion	UIC Data Application Review & Testing
	<p><i>“Chemical Composition of Produced and Flowback Water Collected from Different Hydraulic Fracturing Sites and Wells”</i> Nurhan Dunford, Ph.D., Oklahoma State University</p> <p><i>“Produced Water in Southern Colorado: Using Existing Research to Find the Best Path Forward”</i> Michael Ford, Economist &amp; Produced Water Management, Individual Research Specialist</p> <p><i>“GWPC Produced Water Study Update”</i></p>	<p><i>Moderator: Talib Syed, Consulting Petroleum Engineer</i></p> <p><i>“The Influence of Injectate Characteristics on Injection Well Performance”</i> Joe Haberfeld, Florida Department of Environmental Protection</p> <p><i>“Geochemical Evaluation for Scale Reduction of Coal Combustion Residuals Leachate in Class I UIC”</i> Stephanie Hill, SCS Engineers</p> <p>Bob Van Voorhees, Underground Injection Technology Council</p>	
12:00-1:30	Lunch on your own		

1:30 – 3:00

**Produced Water: Case Studies and Innovation**

*Panel: Produced Water Reuse Case Studies*

- Lloyd Hetrick, Newfield
- Erik Hansen, Shell (Invited)
- XTO Energy (Invited)

**UIC Program Data**

**Moderator: Mark Layne, GWPC**

- Update of EPA/UIC State Data Submittals
- RBDMS EReporting Initiatives
- Braden Head Test Data Management

3:00 – 3:30

**Break**

3:30 – 5:00

**Closing General Session: CWA Discharges to Groundwater via Underground Injection**

**"Groundwater Regulation: Where Various Regulations Intersect"**  
Shellie Chard, Oklahoma DEQ

**"Potential for Class I Issues"**  
Bob Van Voorhees, Underground Injection Technology Council

**"Class II Perspective"**  
Talib Syed, Consulting Petroleum Engineer

# Wednesday, February 27, 2019

7:30 -8:30

Registration

7:30 – 8:30

Continental Breakfast

8:30-10:00

**Injection Well Seminar: Underground Injection Control (UIC) Operator & Regulatory Focused Training**

**Reviewing and Critiquing Environmental Documents Workshop**

**Instructor: Ken Cooper, Petrotek**

**Instructor, John Veil, Veil Environmental**

A practical oriented UIC training course that focuses on conceptual understanding of how UIC well systems function with information on monitoring, maintenance, and regulation. This one-day course covers concepts related to UIC well operations, construction/testing and regulations and breaks them down to explain how they inter-relate and function together. The course is designed for operators and regulators of all experience levels with a focus on introductory and intermediate level knowledge. If you are looking to train new staff or brush up with some continuing education, this course is just for you.

People who work in the environmental field are often asked to review reports, regulatory proposals, and other documents. In some situations, the documents being reviewed have little potential impact on the person or organization doing the review. But in other situations, the documents may pose a threat or have a significant impact on the reviewer. It is very important to conduct an orderly and careful review to ensure that the author of the document did a reasonable job. In this 90-minute workshop, instructor John Veil draws on more than 27 years of experience reviewing EPA and state proposed regulations and reviewing dozens of reports and other documents to share some guidelines on a sound approach to conducting reviews. The workshop discusses the four main elements for conducting a careful review. Those elements include: a) choosing appropriate data sources, b) making proper assumptions, c) conducting suitable analyses, and d) presenting results and conclusions that are justifiable and fair based on the material contained within the document. The workshop provides examples of how these play an important role in doing good research and setting good environmental policy.

Topics Covered:

- Introduction to Underground Injection Control and Injection Wells
- How and Why Injection Wells Work
- Regulation of Injection Wells
- Basics of Well Components and Installation
- Operating with Understanding
- Compliance and Operational Issues
- Mechanical Integrity and Testing
- Reservoir Testing

One of the more talked-about EPA documents in recent years (the December 2016 Hydraulic Fracturing Impacts on Drinking Water report) is used as the primary example to show weaknesses in data, assumptions, analyses, and interpretation/communication of results. Other examples come from serving as an expert witness, following good practices when writing your own documents (Veil's 2015 report on produced water volumes and management practices is the example used here), misleading media reporting, and doing peer review of scientific manuscripts.

Sponsored By:



10:00 – 10:30

Break

10:30-1:00

**Operator and Regulator Training: Injection Wells and  
Underground Injection Control**

*(Seminar Continued)*

1:00

**Adjourn**