

FALL
2025

IN THIS ISSUE:

SER Leadership Change

Sweetwater Carbon
Storage Hub Completes
Class VI Well

Echo Springs
CarbonSAFE Completes
UW's Deepest
Exploration Well

Students Learn About
Life Cycle of a Well with
Continental Resources

Multidisciplinary
Advanced Stimulation
Laboratory Grand
Opening Ceremony

Wyoming CarbonSAFE
Project Concludes

11th Landscape
Discussion on Energy
Law & Policy in the
Rockies



UNIVERSITY
OF WYOMING

School of
Energy Resources

QUARTERLY NEWSLETTER

Vol. 6, Issue 3

ACADEMICS

RESEARCH

OUTREACH



ABOUT THE SCHOOL OF ENERGY RESOURCES

The University of Wyoming (UW) School of Energy Resources (SER) was created in 2006 to enhance the University's energy-related education, research, and engagement. SER directs and funds cutting-edge energy research and technology development. It further bridges the gap between academics and industry through targeted engagement efforts. The partnerships formed between academics and industry ensure programs are relevant, current, and deliver impact and high value to stakeholders and the state.

Since its inception, SER has maintained flexibility in its focus and structure to meet the changing needs of Wyoming's energy industries and the State's economy—which is now more critical than ever.

This quarterly newsletter highlights SER's significant achievements from August 2025 through October 2025, in academics, research, newly emerging areas of focus, and engagement to keep UW and Wyoming at the forefront of the energy sector.



CONTACT US

University of Wyoming
School of Energy Resources
1000 E. University Ave.
Dept. 3012
Laramie, Wyoming 82071

Energy Innovation Center
11th and Lewis
Laramie, Wyoming

(307) 766-6897
serforum@uwyo.edu
uwyo.edu/SER

FOLLOW US



Thank You, Holly!
Best Wishes from the School of
Energy Resources!

SER LEADERSHIP

Krutka Steps Down as UW School of Energy Resources Executive Director

The University of Wyoming has announced that **Holly Krutka** has stepped down as executive director of the School of Energy Resources (SER) following the Energy Resources Council meeting Friday. **Scott Quillinan**, currently SER's senior director of research, will serve as acting executive director while a search is conducted for the next permanent leader.

"Holly has provided exceptional leadership to the School of Energy Resources and to the University of Wyoming," Seidel says. "Under her guidance, SER has continued to strengthen Wyoming's position as a global energy leader through innovative research, workforce development and partnerships that serve the people of our state."

Energy Resources Council Chair Cindy Crane also expresses appreciation for Krutka's service.

"Holly led SER through a period of tremendous growth and impact," Crane says. "She built a strong and collaborative team, expanded academic offerings and deepened relationships with industry, policymakers and donors. Her leadership helped ensure that SER remains a trusted partner and driver of Wyoming's energy future."

During Krutka's tenure, SER has expanded academic programs and student engagement while advancing major initiatives in oil and gas, advanced coal utilization, nuclear energy, hydrogen, critical minerals, and carbon capture, use and storage. The school's research portfolio and partnerships have grown substantially, reinforcing SER's critical role in Wyoming's energy and economic landscape.

"Leading the School of Energy Resources has been an incredible honor," Krutka says. "Our success has been achieved by an incredible team of faculty, staff, students and partners who are deeply committed to Wyoming. I am proud of all we have accomplished together and will be SER's greatest cheerleader long into the future. I have complete faith that Scott will be able to step in and lead the organization during this transition."

Quillinan is SER's senior director of research. He currently directs over \$100 million in SER grant-funded and state-funded research is a principal investigator on several Department of Energy-funded projects, and manages the SER Centers of Excellence. Quillinan received his Bachelor of Science in geology and geophysics in 2006 and his Master of Science in geology and geophysics in 2011, both from UW.

Quillinan joined UW as a senior hydrologist in 2012 and was promoted to director of the Center for Economic Geology Research in 2018. In 2021, he began in his current senior director position. He has about 13 years of experience in energy research and at least 30 publications related to Wyoming-specific topics, such as carbon capture, water, natural gas and geothermal energy.

The Energy Resources Council and the university will launch a search for SER's next executive director, to be led by professional search firm Spencer Stuart. The new director will guide a highly capable team in advancing energy solutions that benefit UW, Wyoming and the nation.



HOLLY KRUTKA



SCOTT QUILLINAN

ACADEMICS

UW Student Completes Valuable Experience in Land Management Internship

McKinzie Barnes, a University of Wyoming student in the Energy Resource Management and Development (ERMD) Program, recently completed a summer internship, gaining significant hands-on experience in the field of land management.

Under the supervision of Joe Icenogle, an oil and gas land and regulatory manager and a member of the Professional Land Management Industry Advisory Board at SER, Barnes worked to determine the land and oil and gas assets for a Wyoming family trust.

Jerre Wroble, the trustee of the John L. Wroble Family Trust, sought the expertise of Icenogle and an ERMD student for the massive undertaking of researching the land and ownership associated with overriding royalties on the mineral estate.

Barnes' work began with extensive virtual research, using online records from Sweetwater and Converse counties, though she also conducted some on-site research at the Converse and Campbell county courthouses. The bulk of her on-site investigation took place in Gillette, where she spent significant time conducting hands-on records digging to uncover critical information. Barnes then summarized her findings into a detailed spreadsheet and mineral ownership report to quantify her client's oil and gas interests, a vital step for a third-party valuation.

READ MORE >

UW Students Complete Geologic Systems Field Course in Moab for Energy Interpretation

Students at the University of Wyoming recently completed a one-credit field course in Moab, Utah, to study rock formations that are direct analogs to those being explored for carbon management in Wyoming.

Open to all UW students and led by **Autumn Eakin**, assistant director of SER's Center for Economic Geology Research (CEGR), the course focused on understanding the geological properties of sedimentary rock layers that could potentially store vast amounts of captured carbon dioxide.

The Moab region offers exceptional exposures of rock units that share similar age and depositional settings with key formations found deep in the subsurface across Wyoming. UW researchers and industry partners are investigating these formations for their suitability as storage reservoirs.

READ MORE >



ACADEMICS

UW Students Learn about Life Cycle of an Oil Well with Continental Resources

University of Wyoming students recently participated in a comprehensive field trip, hosted by Continental Resources, to a drilling and production site in Wyoming.

The immersive experience provided future engineers, geologists, lawyers and energy professionals with an end-to-end view of an oil well's operational life cycle, from initial permitting through production and reclamation.

The event was organized through the Student Chapter of Energy Resources (SCER), which promotes opportunities to actively engage with industry.

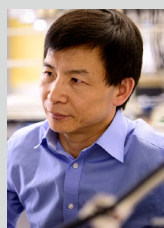
Students in SER, the College of Engineering and Physical Sciences, and the College of Law spent a full day observing active operations northeast of Douglas.

READ MORE >



Academics Highlights

- **Madelyn Cuartas, Harper Pollock and Friets Menanti**, students in the Energy Resource Management and Development (ERMD) degree program at the School of Energy Resources attended the Society of Ecological Restoration Conference in Denver, Colorado. The biennial event brings together global experts in ecological restoration for robust dialogue and networking opportunities.
- School of Energy Resources professors were named among the World's Top 2% Scientists on TOPSCINET, a list identifying highly cited researchers. SER professors making the top 2% include **Dario Grana, Maohong Fan**, and SER Professor Emeritus **Bruce Parkinson**.



- The Student Chapter of Energy Resources hosted a Nuclear Energy Panel featuring UW Alumna **Christine Barry**, and co-directors of SER's Nuclear Energy Research Center, **Caleb M. Hill** and **Tara Righetti**. **David Meraz Ordonez**, a current UW student in the Energy Resource Management and Development degree program, moderated the discussion, providing a unique perspective on this critical topic.
- **John Kaszuba**, the John and Jane Wold Centennial Chair in Energy and SER Professor of Geology and Geophysics, volunteered during the summer as a geologist at a historic gold mining camp. Operated by the Boy Scouts of America each summer at the Philmont Scout Ranch in the Sangre de Cristo Mountains of northeast New Mexico, the mining camp is the site of an interpretative history program depicting life at the mine in the 1920s.



RESEARCH

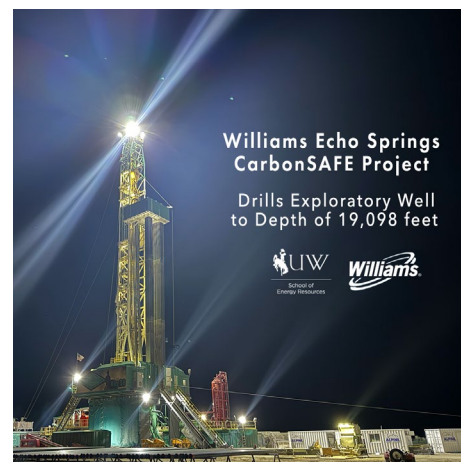
Center for Economic Geology Research

Williams Echo Springs CarbonSAFE Completes Deep Characterization Well for Carbon Storage

The University of Wyoming School of Energy Resources, in partnership with Williams, completed a deep stratigraphic test well to assess the carbon dioxide (CO₂) storage feasibility in the Echo Springs area of south-central Wyoming.

The project is part of the U.S. Department of Energy's Office of Fossil Energy, specifically the Carbon Storage Assurance Facility Enterprise (CarbonSAFE) Initiative, Phase II, which aims to demonstrate the storage potential of subsurface geologic formations that can safely, securely and economically store commercial quantities of CO₂.

Utilizing Wyoming-based True Rig 38, the team recently completed the Class II characterization well, reaching a total depth of 19,098 feet. Deep saline storage in Wyoming basins offer the advantage of miles of overlying containment rock. However, at this depth, temperatures can exceed 330 degrees Fahrenheit, posing challenges to data collection. Deep characterization projects, such as Echo Springs, not only aim to understand the subsurface storage systems, but also can help prepare Wyoming industries to meet deep-basin drilling challenges through new innovation and research.



READ MORE >

Sweetwater Carbon Storage Hub Completes Nation's Deepest Carbon Storage Well

The Sweetwater Carbon Storage Hub (SCS Hub), a collaborative project between the University of Wyoming's School of Energy Resources and Frontier Infrastructure Holdings, a portfolio company of Tailwater Capital and a leading developer of low-carbon infrastructure across the Mountain West and Texas, successfully completed the drilling operations for a second deep-characterization well – a key step in advancing commercial-scale carbon sequestration in Wyoming.

Reaching a total vertical depth of 18,437 feet, the J1-15 well is now the deepest Class VI carbon storage well ever drilled in the United States. Preliminary data from the well is highly encouraging, showing geologic similarities to a proven acid gas injection site located just over 25 miles north. These results further validate the potential of the SCS Hub as a large-scale, permanent carbon storage facility.

READ MORE >

UW School of Energy Resources Closes Out Wyoming CarbonSAFE Project

After nearly a decade of work, the Wyoming CarbonSAFE Project, led by the Center for Economic Geology Research (CEGR) in the UW School of Energy Resources, has officially concluded.

The Wyoming CarbonSAFE Project, which stands for Carbon Storage Assurance Facility Enterprise, is one of 13 original carbon capture, utilization and storage (CCUS) project sites in the U.S. with the ultimate goal of ensuring carbon storage complexes will be ready for integrated CCUS system deployment.

The project launched in 2016 and was primarily funded by the U.S. Department of Energy's National Energy Technology Laboratory and hosted by Basin Electric Power Cooperative's Dry Fork Station near Gillette. Its successful completion of Phase III has established the technical feasibility and storage capacity required for a commercial-scale CCUS operation in the Powder River Basin region of Wyoming.

READ MORE >

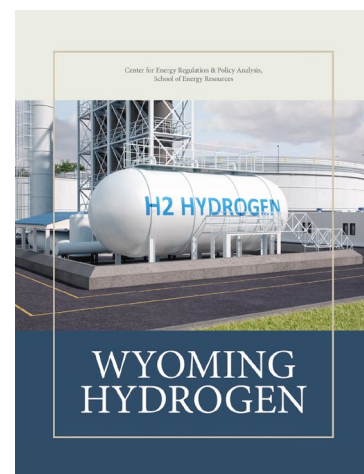
Center for Energy Regulation and Policy Analysis

CERPA Releases New White Paper on Hydrogen Potential in Wyoming

The Center for Energy Regulation and Policy Analysis (CERPA) published a new white paper study that provides a comprehensive report on the potential markets, economics, and policies associated with commercial-scale deployment of hydrogen in Wyoming.

Authored by **Esther Wagner**, a senior research professional in CERPA, along with **Dawson Kleusner**, director of external affairs at the Wyoming Association of Municipalities, the paper contains an in-depth analysis of potential markets for Wyoming hydrogen and potential jobs and economic benefits, as well as policy recommendations and incentives to support the state's efforts to become a competitive hydrogen provider.

[READ MORE >](#)



Hydrogen Energy Research Center

UW's SER Runs Field Course to Advance Geologic Hydrogen Project in Wyoming

The Hydrogen Energy Research Center (H₂ERC) hosted an immersive field course for industry partners and UW students as part of a geologic hydrogen project in Wyoming.

Identified by the U.S. Geological Survey as a geologic hydrogen prospect, Wyoming has meaningful potential for naturally occurring, or geologic, hydrogen. This creates an opportunity to develop a new, abundant, low-cost energy resource by leveraging the state's existing strengths in the fossil fuel and mining industries.

Funded through private investment from Hestia Energy Corp. and matched through a state of Wyoming artificial intelligence (AI) state matching appropriation, the Wyoming Geohydrogen Exploration Project seeks to assess the occurrence of geologic hydrogen in Wyoming, using advanced AI and machine learning technology for precision modeling and mapping resources.

[READ MORE >](#)



Assistant Research Professional **Sarah Buckhold** in H₂ERC (pictured) co-led the field course with Senior Research Professional **Charles Nye**.

Center for Carbon Capture and Conversion

New UW Research Highlights Benefits of Coal Char for Sugar Beet Production, Soil Health

A new publication from researchers in the University of Wyoming School of Energy Resources delves into the potential of carbon-rich products to enhance agricultural productivity in challenging environments.

Published in the journal *Sustainability*, the study, "Effects of Char and Amendments on Soil Properties and Sugar Beet Yield in Sandy Clay Loam Soil," was written by **Resham Thapa**, an assistant research professional in SER's Center for Carbon Capture and Conversion (CCCC), which is focused on supporting the future of Wyoming coal by finding high-volume alternative uses. [READ MORE >](#)

Energy Engagement, Leadership, and Careers

Inaugural Critical Minerals Leadership Academy a Resounding Success

The Critical Minerals Leadership Academy (CMLA), a new initiative designed to foster expertise and collaboration in the critical minerals sector, successfully completed its inaugural session in early August.

Designed to equip participants with a comprehensive understanding of the entire critical minerals value chain, from exploration and extraction to processing, recycling, and end-use applications, the CMLA was sponsored by the U.S. Department of Energy, and hosted by the University of Wyoming School of Energy Resources, with support from the National Energy Technology Laboratory, KeyLogic, Entech Strategies LLC, and multiple industry partners.

The program brought together a diverse group of emerging leaders from government, industry, and academia to address the complex challenges and opportunities surrounding the global supply of critical minerals.

READ MORE >



2025 CMLA Cohort

Research Highlights

- School of Energy Resources Professor of Law and Director of the *Jurisprudence of Underground Law and Energy (JOULE)* research group **Tara Righetti** hosted an international symposium on social, spatial, and legal research related to subsurface implications of the transforming energy sector.
- A collaborative team in UW's Tier-1 Science Initiative and SER's *Energy Engagement, Leadership, and Careers (ELC)* program released new teaching modules for Wyoming educators on uranium roll fronts and carbon capture and storage. The modules include comprehensive lesson plans, interactive activities, and mapping and coding exercises—allowing students in Wyoming classrooms to gain early, interdisciplinary knowledge of relevant concepts in energy science and resource development. **DOWNLOAD>**



- The *3D Visualization Center (3D Viz Center)* launched a new series called VIZIT – a behind-the-scenes look at the cutting-edge tools, technologies, and techniques being explored and developed in the 3D Viz Center. **WATCH>**
- The Coal Refinery Field Demonstration Plant at the Wyoming Innovation Center in Gillette Wyoming is making progress on construction. Developed by the *Center for Carbon Capture and Conversion (CCCC)* the plant is an upscaled coal-to-products facility that will provide intermediate feedstocks for downstream applications such as building materials, soil amendment, asphalt binder and even synthetic graphite.
- The new state-of-the-art Multidisciplinary Advanced Stimulation Laboratory (MASL) was opened in a ribbon cutting ceremony as part of UW Energy Day. Jointly operated by SER and CEPS, MASL aims to pioneer advanced research and technologies to revolutionize primary recovery techniques in unconventional reservoirs. **READ MORE>**



OUTREACH

UW School of Energy Resources Thanks Wyoming for Building the Future of Energy

An op-ed piece penned by School of Energy Resources Executive Director **Holly Krutka** thanks Wyoming industry, government, agencies, and communities for their collaboration and support of energy innovation across the state. The piece was shared in multiple news outlets in Wyoming.

READ MORE >

Landscape Discussion on Energy Law and Policy in the Rockies Conference

The University of Wyoming's Landscape Discussion on Energy Law and Policy in the Rockies Conference returned for an in-person forum Thursday, Oct. 16.

Now held every other year, the forum focuses on timely energy-related legal, regulatory and policy issues relevant to Wyoming and the region. The conference is hosted by UW's School of Energy Resources and the Gina Guy Center for Land and Water in the UW College of Law, as well as the Haub School of Environment and Natural Resources.

The conference brought in energy experts from across the nation to discuss important issues across the spectrum of energy topics in Wyoming. Featured topics included oil and gas and mining law updates, as well as panel discussions on nuclear spent fuel issues, emerging energy opportunities and federal permitting reforms.

Former Wyoming Gov. Dave Freudenthal provided the Gina Guy Keynote on Governmental Service address.



Outreach Highlights

- Please stay up to date on our upcoming events by checking the **EVENTS CALENDAR >**



- The 2025 Annual Report for the School of Energy Resources was completed and sent to the required legislative committees on Oct. 1. Covering the Fiscal year from July 1, 2024 - June 30, 2025, the report can be downloaded from the SER website. **DOWNLOAD REPORT >**



- The School of Energy Resources participated in the University of Wyoming's annual Giving Day event! Supporting the Academic Program and the SER Executive Director's Discretionary Fund, SER exceeded its goal of \$25,000, raising a grand total of \$26,420 from 74 donors!
- The School of Energy Resources completed the fall Distinguished Speaker Series. Featured speakers represented the United States Geological Survey, the Wyoming State Geological Survey, HySpex, Navajo Transitional Energy Company, and Idaho National Laboratory.



PHILANTHROPIC SUPPORT

John and Karen Morgan Next-Generation Mining Technology Fund

The University of Wyoming School of Energy Resources is the recipient of a key gift dedicated to the advancement of technologies for critical mineral exploration, recovery, and mining.

The gift from **John L. Morgan** and his wife, **Karen**, establishes the John and Karen Morgan Next-Generation Mining Technology Fund. The fund fosters excellence and supports research, development, and innovation within SER. It focuses on the development of next-generation mining and extraction technologies that utilize artificial intelligence to target and recover critical minerals from the subsurface.

The gift was doubled by state matching funds, which were explicitly allocated to build artificial intelligence expertise.

A native of Newcastle, Wyo., Morgan earned his bachelor's degree in petroleum engineering from the University of Wyoming in 1973. He has enjoyed a career spanning more than four decades in the energy sector, including leadership roles with Sierra Hamilton, Inc. and BP. He also co-founded Compass Resources Corporation, which focuses on energy assets in Wyoming and Texas. He led advancements in oil and gas exploration, production, and operations management, leaving a lasting impact on global resource development.

Grateful for the education and opportunities UW provided, the Morgans are paying it forward by supporting student research and innovation. Their generous gift will equip future generations with the tools and knowledge to advance resource development and to ensure Wyoming remains a leader in the energy sector.



MAKE A GIFT

CONTACT THE UW FOUNDATION



Angela Ver Ploeg

Senior Director of Corporate Engagement, UW Foundation
Office of Industry and Strategic Partnerships
307-766-1939
angela.verploeg@uwyo.edu



Teddi Freedman

Director of Development, UW Foundation
307-766-6300
teddi.freedman@uwyo.edu



School of
Energy Resources