

# THE Core SAMPLE

Internal Newsletter of the School of Energy Resources

March | 2024

## UW RESEARCHER RECEIVES FULBRIGHT AWARD FOR CRITICAL MINERAL RESEARCH IN NORWAY

**Erin Phillips**, a researcher in the University of Wyoming's School of Energy Resources (SER), has received a Fulbright Award to conduct research associated with energy challenges and sustainable resource management, specifically as they relate to critical materials.



Beginning in January 2025, Phillips will be based in Bergen, Norway, at NORCE — an independent research institution dedicated to addressing societal issues and to increasing sustainable value creation at the local, national and global levels. Over the course of five months, she will work with collaborators at the host institution to conduct a comparative study of the parallels between critical materials supply chains in Norway and Wyoming.

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## UW RESEARCHERS PUBLISH RESULTS ASSESSING COAL CHAR AS A SOIL AMENDMENT

A University of Wyoming Research team led by Research Professional **Resham Thapa** in the School of Energy Resources (SER) published an article assessing the effects of coal char as a soil amendment in *Agronomy*, a top-tier journal in the fields of agronomy and crop science.



The article, "An Assessment of Plant Growth and Soil Properties Using Coal Char and Biochar as a Soil Amendment," was co-written by UW professor emeritus **Peter Stahl**; **Roger Coupal**, the community development specialist in the UW Department of Agricultural and Applied Economics; and **Mohan Dangi**, a professor in the Department of Geography and City and Regional Planning at California State University-Fresno. [Continue Reading >>>](#)

## HIGHLIGHTS

### Research Centers of Excellence

- Director of the *Center for Economic Geology Research (CEGR)* **Fred McLaughlin** presented during a 'Carbon Storage 101 Media Briefing' hosted by the Carbon Capture Coalition. He provided an explanation to participating reporters about the role of carbon storage as a part of the full suite of carbon management technologies in meeting net zero climate goals, and an overview of Class VI permits. [VIEW HERE >](#)



- *CEGR's* **Tyler Brown** and **Erin Phillips**

obtained cores drilled with project partner NTEC. The cores will be analyzed for rare earth elements

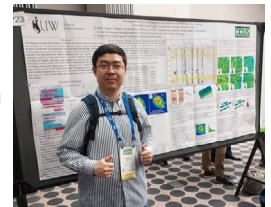


Photo: Tyler Brown and Mark Arambel (NTEC) with Douglas Exploration drilling rig.

and other critical minerals and will contribute to basin-scale resource assessments for the Powder River Basin CORE-CM project.

- *CEGR* Research Professional **Tao Bai**

presented a poster at the AAPG CCUS conference in Houston on the Wyoming CarbonSAFE Project.



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UNIVERSITY OF WYOMING

School of Energy Resources

## UW RESEARCHERS PUBLISH STUDY ON GEOLOGICAL HYDROGEN STORAGE

A collaborative study on hydrogen storage from researchers in the University of Wyoming's College of Engineering and Physical Sciences and the School of Energy Resources (SER) yielded a publication in the *International Journal of Hydrogen Energy*.

The article, titled "Experimental study on the effect of hydrogen on the mechanical properties of Hulett sandstone," was written by Ph.D. student **Ehsan Dabbaghi** in the Department of Civil and Architectural Engineering and Construction Management. The research was under the supervision of **Kam Ng**, the Provost's Term Professor and Hoy Engineering Fellow in the Department of Civil and Architectural Engineering and Construction Management.

Additional authors of the study are SER research professionals **Tyler Brown** and **Ying Yu** in the Center for Economic Geology Research to provide geological and reservoir expertise.

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Ehsan Dabbaghi



Kam Ng



Tyler Brown



Ying Yu

## SARAH BUCKHOLD JOINS HYDROGEN ENERGY RESEARCH CENTER

The Hydrogen Energy Research Center (H<sub>2</sub>ERC) in the School of Energy Resources (SER) is pleased to welcome **Sarah Buckhold** to the research team. Originally from Chico, Cali., Buckhold earned her undergraduate degree from California State University, Chico in mechanical engineering and came to the University of Wyoming in 2017 to study wind energy. She completed her master's degree in mechanical engineering in 2021 from UW and is currently working on finishing her Ph.D. in the Department of Mechanical Engineering.

Buckhold has dedicated her academic career to studying energy solutions. While in California, she helped research, design, and implement low-income energy savings programs to help reduce load on constrained residential substations. Since coming to UW, she has worked extensively on Wyoming energy research projects in the Wind Energy Research Center.

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## HIGHLIGHTS

### Research Cont.

- **Hydrogen Energy Research Center (H<sub>2</sub>ERC) Director Eugene Holubnyak** presented at the U.S. Hydrogen Alliance Annual Convention. He was accompanied by H<sub>2</sub>ERC Senior Research Professional and Project Manager **Charles Nye**.
- Associate Research Professional **Maddie Lewis** in the **Center for Energy Regulation & Policy Analysis (CERPA)** presented at the Western Governor's Association's 'Decarbonizing the West Initiative Webinar.'
  - **Maddie Lewis** was selected to participate in the 2024 Summer Institute put on by the Ellbogen Center for Teaching and Learning. The Institute is a teaching retreat designed for academic professionals to reflect on, and hone their skills in the classroom.
- **Maddie Lewis** along with SER Senior Director of Research **Scott Qullinan** and SER Professor of Law **Tara Righetti** presented at the 'Special Institute on Carbon Capture, Utilization, and Storage session' hosted by the Foundation for Natural Resources and Energy Law.
- **ChooiKim Lau** was selected for UW's Outstanding Master Thesis Award by the UW Graduate Council for her thesis which first introduced char-based materials and performed a preliminary life cycle assessment. Her work provided the foundation for the char-based products being developed in the **Center for Carbon Capture and Conversion (CCCC)**.

## SCHOOL OF ENERGY RESOURCES WELCOMES MARTHA REISCH AS PROJECT SPECIALIST

SER is pleased to welcome **Martha Reisch** as a project specialist. Joining the team in early March, Reisch is working to facilitate the planning, organization, and implementation of major grant-funded research projects.

Originally from Sheridan, Wyo., Reisch has extensive experience in executive-level administrative and leadership roles throughout the State and within the university. Having spent significant time at the UW Foundation and a period in the UW President's Office, Reisch most recently served as the Statewide Donor Strategist for Climb Wyoming before moving to the Central Wyoming College Foundation where she served as the Director of Advancement Services and Alumni Engagement for nearly three years. She holds a B.S. in Business Administration as well as a Real Estate Certificate, both from UW.

In her new role, she will continue to utilize her project management and systems thinking talents to assist with contracts, new proposal development, equipment procurement, and general engagement around the SER research program.

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## EXECUTIVE DIRECTOR OF WYOMING TAXPAYERS ASSOCIATION SPEAKS AT UW

**Ashley Harpstreith**, executive director of the Wyoming Taxpayers Association, spoke about the relationship between Wyoming's mineral industry and the state revenue system, as well as the benefits to Wyoming citizens as part of the School of Energy Resources (SER) Distinguished Speaker Series.

A UW alumna, Harpstreith earned her B.S. in communications with an emphasis in public relations in 2003. She has extensive experience in business and workforce development and has led the Wyoming Taxpayers Association, which provides the essential connection and information between the state's taxpayers and the Legislature, since 2019. Before joining the association, Harpstreith was CEO of Goshen County Economic Development Corp., where she managed a countywide economic development effort that included the Goshen County Chamber of Commerce, Goshen County Tourism Promotions, Visitors Center and Main Street programming.

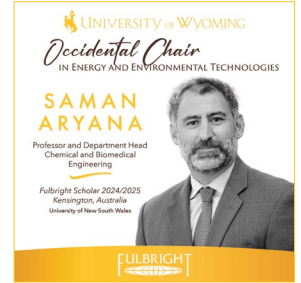
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## HIGHLIGHTS

### Academics

- **Saman Aryana**, professor and Occidental (Oxy) Chair in Energy and Environmental Technologies, as well as head of the University of Wyoming's Department of Chemical and Biomedical Engineering, has received a Fulbright Scholar Award to conduct research in Australia. He will engage with the University of New South Wales, studying and exchanging ideas on topics related to energy transition.



- SER EES Director **Randall Violett** led the 'Ranching in the West' webinar and discussion in Gillette. The event highlighted the overlap between SER and the College of Agriculture, Life Sciences & Natural Resources and featured SER Alumnus **Fred Eden** as a panelist.

### Outreach

- SER hosted a booth at the AAPG CCUS Conference in Houston featuring information on SER research projects and the Wyoming Integrated Test Center (ITC).
- The Western Rural Electric Cooperative featured SER and the ITC in the March issue of their Western Rural Electric News (WREN) magazine. The article focuses on efforts in carbon capture and storage.



[READ HERE >](#)

## SER BIRTHDAYS!

### MARCH

Tara Righetti, Mar. 3

Maddie Lewis, Mar. 3

Sabrina Kaufman, Mar. 7

Tanner McClure, Mar. 12

Marie Dudgeon, Mar. 17

Christine Reed, Mar. 31

*Reminder: If you want your birthday recognized, please update your information with Kristi Russow at [krussow@uwyo.edu](mailto:krussow@uwyo.edu).*

## IMPORTANT DATES

- **Energy Resources Council Meeting**  
April 4-5, 2024
- **Partial Solar Eclipse**  
April 8, 2024
- **Distinguished Speaker Series | Caryn Campbell of Enbridge**  
April 17, 2024
- **UW in Your Community | Wheatland**  
April 17, 2024
- **Powder River Basin CORE-CM Annual Forum | Billings, MT**  
April 23-24, 2024
- **Distinguished Speaker Series | Katherine Dombrowski of Trimeric**  
April 26, 2024
- **2024 Rocky Mountain Professional Landman Conference**  
April 29, 2024
- **Last Day of UW Classes**  
May 3, 2024
- **Finals Week**  
May 6-10, 2024
- **Spring Commencement Ceremony**  
May 11, 2024

## ENERGY JOKE

