

July | 2023

## UW AND PARTNERS TO CREATE GEOLOGIC DATABASE FOR CARBON STORAGE

A collaborative project proposed by the University of Wyoming School of Energy Resources' Center for Economic Geology Research (CEGR), the Wyoming State Geological Survey (WSGS) and the Wyoming Department of Environmental Quality (DEQ) will create a data-verified Class VI geologic database providing a unique service to carbon storage developers and regulatory agencies for the state of Wyoming.

To be funded, in part, by the U.S. Department of Energy's (DOE) Office of Fossil Energy and Carbon Management, the award will advance DOE's regional initiative to accelerate carbon management deployment.

The proposed database will provide geotechnical information that has been compiled and verified from established, public geologic databases and entities. It also will include a record of key social considerations and community benefits that developers should consider when preparing Class VI well permit applications to DEQ.

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## ENERGY RESOURCES COUNCIL BOARD MEMBER RECEIVES SPECIAL AWARD FROM AMERICAN NUCLEAR SOCIETY

School of Energy Resources (SER) Energy Resources Council (ERC) board member the Honorable **Donald E. Burkhart, Jr.** was recognized by the American Nuclear Society (ANS) as a Special Award recipient for 2023.

A representative in the Wyoming Legislature for District 15, Burkhart was recognized for his leadership in encouraging nuclear energy to be a part of Wyoming's overall portfolio in order to address the unique challenges of reducing emissions, providing reliability, while also satisfying high energy demand.



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## HIGHLIGHTS

### Research Centers of Excellence

- Researchers from the *Center for Economic Geology Research (CEGR)*, as well as SER staff and faculty traveled to Rock Springs and Kemmerer Wyoming for an underground tour of the Genesis Alkalai trona mine, the Kemmerer coal mine, and then took a field trip to collect fossils from Fossil Butte.



The group included Davin Bagdonas, Lily Jackson, Bob Gregory, Christine Reed, Kami Danaei, Kris Koski, John Kaszuba, Randy Pfeiffer, and Dean Scott Beaulier and was led by Saeed Danaei of Genesis Alkalai.

- The 19th annual Research Experience in Carbon Sequestration (RECS) program—sponsored by the U.S. Department of Energy, Office of Fossil Energy & Carbon Management (FECM)—was held on July 16-25, 2023 in Colorado and Wyoming. CEGR Program Manager **Erin Phillips** led a field course for the program.



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Energy Resources

## NUCLEAR ENERGY RESEARCH CENTER SEEKS PROPOSAL FOR FACULTY SCHOLARS AND PROFESSIONAL DEVELOPMENT TRAVEL GRANTS

The Nuclear Energy Research Center (NERC) in the School of Energy Resources is seeking proposals from current University of Wyoming employees to develop a Faculty Scholars Program and to support professional development travel opportunities for nuclear-related research.

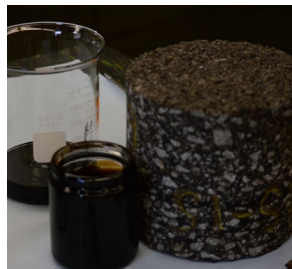
NERC has opened the two funding opportunities to expand the accessibility of interested UW staff, faculty and students to networks and collaboration prospects among the nuclear research community. The center is focused on building research capacity related to nuclear energy at UW.

Proposals for the Faculty Scholars Program will be accepted through Sept. 1, and proposals for the professional development travel grants will be accepted until all funds are allocated.

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## UW'S SER AND WRI COLLABORATION ON GREEN COAL-BASED ASPHALT FEATURED AT CONFERENCE

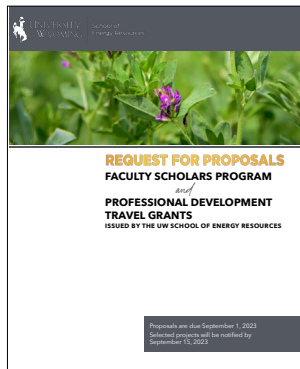
Coal-based asphalt currently being developed in a collaborative project between Western Research Institute (WRI) and the University of Wyoming's Center for Carbon Capture and Conversion (CCCC) was a featured product at the Peterson Asphalt Research Conference. The conference was held July 18-20 at UW's Marian H. Rochelle Gateway Center.



**Jeramie Adams**, vice president of WRI's Renewable Upcycling, Materials and Asphalt Technologies, is the lead scientist developing the coal-based asphalt. He discussed the current developments of the technology and how it could help the asphalt industry meet lower emissions standards, while providing a new high-volume, alternative, domestic source of flexible asphalt pavement binder.

The project is still in early stages but with aims to move out of the lab into field tests. It will be heavily dependent on the ability of the CCCC to scale up the corresponding solvent extraction technology to produce enough feedstock for large-scale batches of asphalt.

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## HIGHLIGHTS

### Research Cont.

- RECS Director Pam Tomski will be working at SER for several weeks in collaboration with the **CEGR CORE-CM** project in the Powder River Basin.

- The research team welcomed **Pat McLean** as the new Admin Assistant to support the Center's of Excellence. Full profile in next edition!



- The 3D Visualization Center welcomed **Kyle Carncross** and **Cole James** to the 3D Viz team! Full profile on the duo in the next edition!



### Academics

- SER Professor of Law **Tara Righetti** was quoted in an article by **ENERGYWIRE** about the Biden Administration considering CO<sub>2</sub> storage in national forests. [Read here >](#)



- The SER academic program welcomed **Randall Violet** as the new program director for the Energy and Environmental Systems (EES) concentration. Violet serves as the associate director of the Ranch



Management program in the College of Agriculture, Life Sciences and Natural Resources. Profile coming soon!

# SCHOOL OF ENERGY RESOURCES WELCOMES FOUR NEW RESEARCHERS TO THE CENTER FOR CARBON CAPTURE AND CONVERSION

The Center for Carbon Capture and Conversion (CCCC) in the School of Energy Resources (SER) is the latest Center of Excellence to exponentially expand its research team with the addition of four research scientists.

SER welcomed **Marie Dudgeon, Louis Christiaan 'LC' Muller, Resham Thapa** and **Elijah 'Eli' Ellis** in July to keep pace with expanding scope and project advancement in the CCCC. All involved in the flagship carbon engineering initiative, the quartet will work toward advancing the Center's mission to find new, high volume uses for Wyoming coal.

In her new role as an associate research scientist, Dudgeon will be leading the scale-up of the solvent extraction project – an essential piece of advancing the downstream coal products under development in the Center.

Similarly working on the coal refinery technology, Cheyenne-native Eli Ellis will be focused on the flash pyrolysis project.

On the downstream side of the carbon engineering initiative in the CCCC, LC Muller and Resham Thapa are working to develop novel, coal-derived products by utilizing the materials yielded from the coal refinery process technology.

Muller will continue to work in collaboration with Western Research Institute (WRI) to develop and test the coal-based asphalt materials, while Thapa will continue to lead a separate project utilizing pyrolyzed coal char as a soil amendment.

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Picture top to bottom:  
Marie Dudgeon, Eli Ellis, LC Muller, and Resham Thapa

## IMPORTANT DATES

- **August ERC Meeting**  
August 17-18, 2023
- **Saddle Up Orientation for new students**  
August 18-25, 2023
- **Rockies Petroleum Conference at UW (f.k.a. PAW Annual Conference)**  
August 23-25, 2023
- **First day of UW classes**  
August 28, 2023
- **2023 FECM / NETL Carbon Management Research Project Review Meeting**  
August 28-September 1, 2023
- **Labor Day - UW offices closed**  
September 4, 2023
- **Hydrogen Energy Seminar Series Discussion Session**  
September 6, 2023

## ENERGY JOKE



**SER  
BIRTHDAYS!**

**JULY**

Carrie Ver Burg, July 24

