

THE Core SAMPLE

Internal Newsletter of the School of Energy Resources

June | 2021

SER PART OF THE WYOMING INNOVATION CENTER GROUNDBREAKING CEREMONY

Representatives from the School of Energy Resources were in attendance for the Energy Capital Economic Development Wyoming Innovation Center groundbreaking ceremony in Gillette, Wyoming.

SER Executive Director **Holly Krutka**, Director of Research **Scott Quillinan**, and Interim Director of the Center for Economic Geology Research (CEGR) **Fred McLaughlin** made the trip for the occasion. Dr. Krutka offered remarks in the dedication ceremony on behalf of the School of Energy Resources.



SOLVENT EXTRACTION PILOT PLANT MOVES OFF-CAMPUS AS PROJECT CONTINUES TO ADVANCE

The Carbon Capture and Conversion Center of Excellence (CCCC) at the School of Energy Resources (SER) recently migrated the coal solvent extraction pilot plant from the Energy Innovation Center (EIC) laboratory site where it was commissioned, to a new dedicated off-campus location. This pilot plant is demonstrating one of the core process technologies for SER's carbon engineering program focused on using Wyoming coal to produce valuable, non-energy and fuel intermediate products.



The relocation of the pilot plant is a critical step in the effort to scale-up the process for a follow-up field demonstration with the ultimate goal of commercialization.

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HIGHLIGHTS

Academic Program

- The Energy, Land, and Water (ELW) concentration has been renamed the Energy and Environmental Systems (EES) concentration.
- The Academic Program has asked that any researchers or faculty members traveling or working in the field use their position to help recruit students! Stay tuned for more information on how to prepare and ways you can help.
- Student worker **Fernando Lechuga** began working this summer for academics to assist with their new social media campaign.

Research Centers of Excellence

- *The Center for Energy Regulation & Policy Analysis (CERPA)* hosted a wildly successful webinar on small modular nuclear reactors. A recording of the presentation is available to watch on their [website](#).***
- *CERPA* is currently negotiating a contract with an Energy Economist, **Melissa Lee**, who will assist with research projects in the center.
- *The Center for Carbon Capture and Conversion (CCCC)* has completed interviews and narrowed down candidates for the two vacant positions in the center. Offers are expected to be made in the coming weeks for a senior research scientist and an associate research scientist.

*** more details in features

To submit news and updates email: Christine.reed@uwyo.edu



School of Energy Resources

UW SER GRADUATES NINE ERMD STUDENTS IN SPRING 2021

The School of Energy Resources said farewell to nine graduates in the spring of 2021! Graduating in the Professional Land Management (PLM) concentration were: **Paige Trent, Hugo Hernandez, Jordan Remley, Kyle Walton, Riley Sessions, and Cooper Neavill.**



Graduating in the Energy, Land & Water concentration (now renamed the Energy and Environmental Systems (EES) concentration were:

Alyson White Eagle - SoundingSides and Tori Strom.

Rounding out the class of 2021 was **SungHa Kim**, who completed his degree under the Renewable Energy concentration.

STUDENT PROFILE: ALYSON WHITE EAGLE-SOUNDINGSIDES



Graduation marks the culmination of years of hard work – time spent pursuing a passion that will open doors to the future. For those that achieve this significant milestone, it serves as an important reminder of all that has been

accomplished and all that can be. This anecdote is certainly true for School of Energy Resources (SER) graduate, **Alyson White Eagle-SoundingSides.**

A nontraditional student, White Eagle-SoundingSides was already a wife and mother to two beautiful daughters when she enrolled at the University of Wyoming (UW). After taking a smattering of courses over the years at the community college level, she was finally able to commit to school full-time and realize her dream of a degree.

White Eagle-SoundingSides is a member of the Northern Arapaho tribe and hails from the Wind River Reservation in Wyoming. She was inspired to pursue a degree by her grandfather, Crawford White Eagle, Sr. A tribal elder, White Eagle will be conferred an honorary degree posthumously this year, making the occasion all the more meaningful.

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HIGHLIGHTS CONT.

Research Centers of Excellence Cont.

- *Center for Economic Geology Research (CEGR)* has hired two graduate students to assist on projects in the center, **Garrett Gay**, and **Taylor McCampell**.



- *The Enhanced Oil Recovery Institute (EORI)* is hosting the Wyoming Oil & Gas Fair. Registration for the event is now live! [Register >>>](#)

General Announcements

- **Dr. Holly Krutka** presented at Minerals Week 2021 for the Minerals Council of Australia. She spoke on a panel, "**Global energy outlook and implications for mining and policy.**"
- Roadtrip Nation by PBS visited the School of Energy Resources as part of their Wyoming Roadtrip episode. The feature will explore how companies are stimulating the Wyoming economy, building jobs for the future generation, and how UW is working with the 9H foundation. The episode will air in the fall.
- SER and the Haub School for Environment & Natural Resources are currently in the process of interviewing candidates for the Occidental Chair in Environmental and Energy Policy. You may view the public presentations of the first two candidates here:

[Kathy Araujo >>>](#)

[Grant Jacobsen >>>](#)

- The School of Energy Resources was please to host staff members **Esther Wagner** and **Tammy Hooper** from U.S. Representative Liz Cheney's Office this week! Wagner and Hooper were able to tour the SER facilities and learn about all of the innovative projects going on in our Centers of Excellence to advance energy development in Wyoming!



SER'S EXECUTIVE DIRECTOR HOLLY KRUTKA SELECTED FOR LEADERSHIP WYOMING CLASS OF 2022



SER Executive Director Holly Krutka is one of 42 Wyoming citizens selected for the Leadership Wyoming Class of 2022.

Created in 2000 through a partnership between Wyoming Heritage Foundation founder Bill Schilling, the University of Wyoming, and former Speaker of the House and President of the Wyoming Senate Eli Bebout, the program was designed to serve as an educational forum for community leaders around

Wyoming to mature their leadership abilities, broaden their perspectives and perceptions, and to work collaboratively in order to cultivate a deeper understanding of the diverse sectors within the state.

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UW'S QUILLINAN AND MCLAUGHLIN TAKE ON NEW LEADERSHIP ROLES IN THE SCHOOL OF ENERGY RESOURCES

The School of Energy Resources (SER) is pleased to announce the promotion of two senior research professionals within the organization, Mr. Scott Quillinan and Dr. Fred McLaughlin.

Quillinan, who has previously served as the Director of Operations and Communications and the Director of the Center for Economic Geology Research (CEGR), has stepped into the newly created position, Senior Director of Research for SER.

With Quillinan stepping away from his leadership role in CEGR, McLaughlin has taken the reins as Interim Director. Having served CEGR for nearly a decade as a Senior Research Scientist, McLaughlin has been an instrumental leader on multiple high-profile, grant-funded projects, including the nearly \$20 million Phase III Wyoming CarbonSAFE project.

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UW PROFESSOR NAMED RECIPIENT OF ELECTROCHEMICAL SOCIETY AWARD

A University of Wyoming chemistry professor recently was selected to receive the Physical and Analytical Electrochemistry Division David C. Grahame Award from The Electrochemical Society (ECS).

Bruce Parkinson, the J.E. Warren Professor of Energy and Environment in UW's Department of Chemistry and the School of Energy Resources, will be honored during the 239th ECS Meeting, which will take place May 30-June 3. Parkinson will present "My 54 Years of Doing Electrochemistry and What Is New" during the virtual convention.



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Cindy Ishkanian was nominated for the Unsung Hero Award on Staff Recognition Day for her dedication and hard work in maintaining the accounting for SER's many large grants! [Staff Recognition Day >>>](#)

Dr. Heng Wang published an important article "Effect of CO₂-brine-rock reactions on pore architecture and permeability in dolostone:

Implications for CO₂ storage and EOR," in the International Journal of Greenhouse Gas Control, Volume 107, May 2021. [Read Article >>>](#)



Dr. Ying Yu published an article "Supercritical CO₂ Foam Stabilized by a Viscoelastic Surfactant in Fractured Porous Media: The Effect of Fracture Surface Roughness," as part of her Ph.D.. The article was published in the June 2021 *Energy & Fuels* by the American Chemical Society. [Read Article >>>](#)



As part of the CarbonSAFE project, **Zuhao Kou** published an article "Impact of sub-core scale heterogeneity on CO₂/brine multiphase flow for geological carbon storage in the upper Minnelusa sandstones," in the Journal of Hydrology, Volume 599, August 2021. [Read Article >>>](#)

SER HOSTED NUCLEAR ENERGY PANEL ON IMPORTANT DAY FOR WYOMING

The School of Energy Resources was pleased to present “Advanced Energy Technologies: Social and Environmental Considerations for Small Modular Reactors.”



As we learned during the presentation, our discussions could not have been better timed. The impressive information about small modular reactors from our presenters is incredibly helpful in understanding what the future will look like for nuclear energy in Wyoming.

If you missed the presentation, wish to watch it again, or share it, the recording is now posted to the CERPA website along with the slides. [View Presentation >>>](#)

For more information about Governor Mark Gordon’s exciting announcement with TerraPower and PacifiCorp and their efforts to advance a Natrium™ reactor demonstration project at a retiring coal plant in Wyoming, please visit the [project website >>>](#)



With COVID restrictions lifting and campus getting back to normal, SER events are picking up!! Please see below important dates to keep in mind. To stay up to day on SER events and details, please regularly check the SER events webpage: <http://www.uwyo.edu/ser/events/index.html>

IMPORTANT DATES

- **CERPA Webinar: Clean Electricity Standard**
June 16, 2021 | 2:00 - 3:00 pm
- **Energy Resource Council Meeting**
June 17-18, 2021
- **Wyoming Oil & Gas Fair Webinar**
June 22, 2021
- **Fourth of July Holiday Observed**
July 5, 2021 - *Office Closed*
- **Hydrogen Energy Panel Discussion**
July 29, 2021
- **CarbonSAFE Public Outreach Meeting**
August 3, 2021
- **CarbonSAFE Field Activities**
August 6, 2021
- **CERPA Webinar: Energy Ethics**
August TBA, 2021
- **NAPE Summit Meeting**
August 18-20, 2021
- **Welcome Back Student Event**
August 20, 2021
- **Fall Semester Classes Start**
August 23, 2021
- **CarbonSAFE Drill PRB#2/Media Day**
August TBD, 2021
- **PAW Annual Meeting**
August 25-27, 2021
- **WYDEQ Region 8 Director's Meeting**
August 31 - September 1, 2021
- **SER Distinguished Speaker Series #1**
September 17, 2021
- **Energy Day (UW v. Ball State)**
September 17, 2021
- **SER Distinguished Speaker Series #2**
October 1, 2021