

SOCIETY OF PETROLEUM ENGINEERS
 Wyoming Petroleum Section
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Section Website For Latest News:
<http://wyoming.spe.org/>

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UPCOMING AREA MEETINGS

WYOMING GEOLOGICAL ASSOCIATION –

The **April 7** WGA/SPE meeting will be **virtual**. Starting **April 16**, meetings will be **in-person** (see page 4 for more information). If you would like to attend any of these talks, please RSVP to wygeology@gmail.com by Thursday before the talk to receive the meeting information. For the April 7, talk either click on the link on page 3 or RSVP to wygeology@gmail.com by Wednesday, March 31.

April 2, 2021: No Talk – Happy Easter!!



April 7, 2021 (Virtual SPE): Robert F. Shelley – RF SHELLEY, LLC – *Completion Design Using Artificial Intelligence and Machine Learning: Case Histories*

April 16, 2021 (In-person): Ben Cook – UW-School of Energy Resources – Topic TBD

April 23, 2021 (Likely In-person): Patrick Druckenmiller – University of Alaska-Museum of the North – Overview of fossils in Alaska

April 30, 2021 (Likely In-person): Derek Lichtner & Rachel Toner – Wyoming State Geological Survey – *Wall Creek-Turner of the Powder River Basin* (Working Title)

UPCOMING MONTHLY PRESENTATIONS FOR THE SPE WYOMING PETROLEUM SECTION

**Wednesday, April 7, 2021 (11:10 AM) – Robert F. Shelley - RF SHELLEY, LLC -
Completion Design Using Artificial Intelligence and Machine Learning: Case Histories**

May 7, 2021 – David Granum – ConocoPhillips – Sulfur Recovery in Oil and Gas Treating





Society of Petroleum Engineers

Wyoming Petroleum Section April 2021 Newsletter <http://wyoming.spe.org/>



When: **Wednesday, April 7, 2021**
Where: **VIRTUAL MEETING**
Time: **11:10 AM**

Register at
<https://www.spe.org/en/dl/schedule/>
for meeting link

Event: **Robert F. Shelley - RF SHELLEY, LLC - Completion Design Using Artificial Intelligence and Machine Learning: Case Histories**



BIOGRAPHY:

Robert F (Bob) Shelley has over 20 years of experience with the application of artificial intelligence and machine learning to well completion design, execution and evaluation. Currently he is President of RF Shelley LLC, Well Performance Evaluation based in Houston. During his 42 year career, he has authored 30+ SPE papers and 8 patents in the areas of well completion, hydraulic fracturing and reservoir evaluation. Bob holds a BS degree in Civil Engineering from Colorado State University and is a Registered Petroleum Engineer in Texas and Colorado. Prior to starting his own consulting entity, Bob worked for Halliburton, RTA LLC, Landmark and StrataGen.



ABSTRACT:

Over the life of a well field, operators are tasked with designing completions for new wells; however, impediments to reservoir and completion understanding can result in less than optimum well performance. Use of a completion design process facilitated by artificial intelligence (AI) and machine learning can overcome these limitations by providing new insight about how to improve completion effectiveness. This type of approach has facilitated the development of well fields that were previously uneconomic.

The vertical and horizontal wellbore case studies presented have resulted in up to twice the production/recovery and in some cases a significant reduction in completion cost. This presentation will show how AI facilitated data evaluation studies have been used to enhance understanding about the complex interaction between reservoir strata, the wellbore and completion design. Case history examples from the Granite Wash, Bakken and Marcellus are included in this presentation.



CALENDAR OF EVENTS and NEWS WYOMING PETROLEUM SECTION



Due to our excellent participation in past continuing education events, we will continue to offer these as they become available. Our web address is <http://wyoming.spe.org>

The SPE Wyoming Petroleum Section has sent out letters requesting scholarship sponsors for the **2021 year**. Please consider helping out these deserving students in their academic pursuits. Scholarships will be awarded in the Spring of 2021. If you need further information please contact Sabrina Hamner at: sabrina.hamner@wyo.gov



April 7 is virtual at noon.

April 16 will be in-person at True Rivercross Commons. It is a “**bring your own lunch**” meeting, starting at 11:15 with the talk at noon. We will gauge interest for in-person meetings and make a decision going forward.

After April 16 will depend on interest, we will send out information as it comes in.

RSVP TO wygeology@gmail.com
FOR MEETING INFORMATION

Please pass this scholarship information to anyone who might be interested.

UPCOMING OPPORTUNITIES

The 2021 Gene George Golf Tournament is going forward!!

Mark your calendars for June 18!!

We will send out more information as it becomes available.

