

HYDRAULIC FRACTURING 101

July 18-19, 2018
Hyatt Place Denver Tech Center
Denver, CO



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course

OVERVIEW

Individuals in many disciplines need an understanding of oil and gas well fracturing, but most classes are either very basic or are designed for fracturing design engineers.

An understanding of the fracking process can help companies increase production from wells while avoiding liability resulting from environmental damage. When problems do arise, understanding what causes the problems is critical to developing cement repair plans, or other remediation plans. An understanding of the issues around water use and re-use will help to manage the expense associated with water management.

This course is designed to give an overview of how fracturing works, the terminology used, and the processes that are incorporated into hydraulic fracturing. The instructor will discuss in-depth the various processes, requirements, and issues surrounding hydraulic fracturing. She will identify the steps involved in hydraulic fracturing, types of frac fluids, and types of proppants. She will address drilling, casing (pipe), and cementing as it relates to hydraulic fracturing. Attendees will learn about cementing repairs as well as water processing for reuse or discharge back into the environment. Attendees will also learn how to decipher frac reports. Attendees will leave with a feel for current and pending regulations regarding hydraulic fracturing.

LEARNING OUTCOMES

Attendees to this course will

- Describe how hydraulic fracturing works
- Examine drilling and cementing as it relates to the hydraulic fracturing process
- Define how wellbore construction, including casing and cementing, relates to how the wellbore does or does not prevent fracking fluid from escaping into shallow aquifers
- Discuss wellbore repairs
- Assess methods for recycling fracking fluids and how much can realistically be recycled
- Review current and pending regulations, including local land-use permitting
- Locate and discuss key case studies
- Find information in frac reports from regulators' websites and FracFocus

WHO SHOULD ATTEND

- Landmen
- Administrative personnel
- Regulatory agency employees
- Insurance underwriters
- Attorneys
- Suppliers
- Groundwater remediation professionals
- Financial and accounting managers

COURSE TIMING

WEDNESDAY, JULY 18, 2018

8:00 – 8:30 am	Registration and Continental Breakfast
8:30 am – 5:00 pm	Course Timing
12:00 pm – 1:00 pm	Group Luncheon

AGENDA

How Fracturing Works

- Steps in the hydraulic fracturing process
- Types of frac fluids
- Sand
- Types of proppants
- Flowback
- Frac design
- Frac pressure
- Post-treatment reports
- Well-bore diameter
- Fracturing horizontal wells

Drilling and Cementing

- Brief process overview
- Steps to set the stage for safe, economic fracturing

Cementing Repairs

- Identifying cement problems
- Squeeze cementing concepts
- Reading squeeze cementing reports

Water Processing for Re-use or Discharge to the Environment

- Evaluating whether water is economic to re-use
- Reuse for fracturing
- Recycle for other purposes
- Re-injection
- Equipment and processes for water reclamation

COURSE TIMING

THURSDAY, JULY 19, 2018

8:00 – 8:30 am **Continental Breakfast**

8:30 am – 12:30 pm **Course Timing**

AGENDA

Regulations & FracFocus

- Regulations
 - o Federal
 - o State
 - o Local
 - o Urban and sub-urban development
- Data examples from regulator websites

Case Studies

- Overview
- Case studies
- Conclusions

Deciphering Frac Reports

- Different fluid types (pad vs. sand stages)
- Pressures and rates
- Instantaneous shut in pressure
- Hydraulic horsepower

Summary and Conclusion

COURSE INSTRUCTOR



Lisa Denke, P.E.

Lisa Denke began her career by getting a bachelor's in electrical engineering from the University of Wyoming in 1993. She took a job cementing, acidizing and fracturing wells with Schlumberger in Worland, Wyoming, and has since worked in California, North Dakota, and the Rocky Mountain area in both subsurface and facilities engineering for Texaco, Aera Energy and Berry Petroleum. She has worked for the consulting firms TJ Cross, Ken Small, and Processes Unlimited, and more recently for the civil firm Quality Engineering in Fort Collins, Colorado. She is licensed as a mechanical engineer in Wyoming and Colorado, and currently consults from LaSalle, Colorado.

INSTRUCTIONAL METHODS

Case studies and PowerPoint presentations will be used in this program.

REQUIREMENTS FOR SUCCESSFUL COMPLETION

Participants must sign in/out each day and be in attendance for the entirety of the course to be eligible for continuing education credit.

IACET CREDITS



EUCI has been accredited as an Authorized Provider by the International Association for Continuing Education and Training (IACET). In obtaining this accreditation, EUCI has demonstrated that it complies with the ANSI/IACET Standard which is recognized internationally as a standard of good practice. As a result of their Authorized Provider status, EUCI is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET Standard.

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EVENT LOCATION

A room block has been reserved at the Hyatt Place Denver Tech Center, 8300 E Crescent Parkway, Greenwood Village, CO 80111, for the nights of July 15-18, 2018. Room rates are \$159 USD, plus applicable tax. Call **1-303-804-0700** for reservations and mention the EUCI event to get the group rate. The cutoff date to receive the group rate is June 17, 2018 but as there are a limited number of rooms available at this rate, the room block may close sooner. ***Please make your reservations early.***

REGISTER 3, SEND THE 4TH FREE

Any organization wishing to send multiple attendees to this event may send 1 FREE for every 3 delegates registered. Please note that all registrations must be made at the same time to qualify.

REGISTRATION
to register [CLICK HERE](#) or

Call: 201 871 0474
fax: 253 663 7224
email: register@pmaconference.com
web: <http://pmaconference.com/>
Mail: POB 2303 Falls Church Va 22042

Please make checks payable to: "PMA"

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PLEASE REGISTER

- BOTH OILFIELDS 101 AND HYDRAULIC FRACTURING 101 COURSES**
 JULY 16-19, 2018: US \$2495
 Early bird on or before June 29, 2018: US \$2295
- HYDRAULIC FRACTURING 101 ONLY**
 JULY 16-17, 2018: US \$1395
 Early bird on or before June 29, 2018: US \$1195

How did you hear about this event? (direct e-mail, colleague, speaker(s), etc.)

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Company

What name do you prefer on your name badge?

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Phone Email

List any dietary or accessibility needs here

CREDIT CARD INFORMATION

Name on Card Billing Address

Account Number Billing City Billing State

Exp. Date Security Code (last 3 digits on the back of Visa and MC or 4 digits on front of AmEx) Billing Zip Code/Postal Code

OR Enclosed is a check for \$ _____ to cover _____ registrations.

Substitutions & Cancellations

Your registration may be transferred to a member of your organization up to 24 hours in advance of the event. Cancellations must be received on or before June 15, 2018 in order to be refunded and will be subject to a US \$195.00 processing fee per registrant. No refunds will be made after this date. Cancellations received after this date will create a credit of the tuition (less processing fee) good toward any other EUCI event. This credit will be good for six months from the cancellation date. In the event of non-attendance, all registration fees will be forfeited. In case of course cancellation, EUCI's liability is limited to refund of the event registration fee only. For more information regarding administrative policies, such as complaints and refunds, please contact our offices at (201) 871-0474.