

# Joint GRC-SPE Workshop

## High-Temperature Well Cementing

March 30 - April 1, 2020, San Diego, California, USA

Save the Date!

More information at  
[geothermal.org/cementing.html](http://geothermal.org/cementing.html)



The **Geothermal Resources Council (GRC)** together with the **Society of Petroleum Engineers (SPE)** are organizing a workshop on high-temperature cementing.

Geothermal wells experience high temperatures at very shallow depths and are required to cement casing across the entire length of each casing string set in the well. The large temperature variations over the lifecycle of thermal oil recovery wells, and the very high temperatures of high-pressure/high-temperature (HP-HT) oil & gas wells drilled to ever greater depths, continue to push cement selection and placement technologies. All of these environments pose unique challenges to successful well completion. Cementing is crucial to ensure proper well integrity for the life of production and injection wells in these HT applications.

The GRC and the SPE have decided that a joint workshop would enable both industries to share their experiences, technologies, technical procedures and best practices on this important aspect of well completion. The workshop will highlight cement formulae and slurry blends, placement methods, remedial procedures and result evaluations. Case studies will be discussed and analyzed.

All drilling personnel, both geothermal and oil & gas drilling and production engineers, well-site supervisors, cementing engineers and interested personnel are welcome to attend and participate. This workshop will be held in San Diego, CA between Monday March 30th and Wednesday April 1st, 2020.

This announcement is meant to serve three purposes:

- First, to engage your interest in attending this workshop and therefore encourage you to save the date.
- Secondly, we are looking for volunteers to assist us in chairing the various sessions in the outlined agenda given below.
- Thirdly, we are seeking presenters for each of the sessions.

If you would like to chair any of the sessions, then please contact us. We would like to have two chairs for each session, one from the geothermal industry and one from the oil & gas industry. The chairs for each session will be required to assist the committee in obtaining presenters. Please volunteer.

Please contact us if you are interested in presenting in a session at the workshop. If you have a case history that you would like to present and would interest the attendees, please feel free to inform us and plan to present.

**Please plan to attend.**

**You can contact us at:**

- **Estela Smith**, Events Manager, GRC: 1-530-758-2360, [grc@geothermal.org](mailto:grc@geothermal.org)
- **Louis E. Capuano Jr.**, President, Capuano Engineering Company: [LCapuano@capuanoengineering.com](mailto:LCapuano@capuanoengineering.com)
- **Todd Zahacy**, Senior Consultant, C-FER Technologies: [T.Zahacy@cfertech.com](mailto:T.Zahacy@cfertech.com)

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# Agenda

## 1. The Function of Cement in Well Construction

- Isolation
- Structural
- Sealing off unwanted zones
- Loss circulation control

## 2. Slurry Blends

- Desired properties of the slurry
- Additives and retarders including high temperature additives
- Long term results
- Corrosion control and corrosion resistant
- Light weight cements
- Acid resistant cements

## 3. HT/HP Cements

- High-temperature resistant cements
- High-pressure cement and placement

## 4. Placement Procedures

- Conventional and inner string cementing
- Reverse cementing
- Staged cementing
- Tie-back cementing
- Centralized casing strings

## 5. Other Uses of Cement

- Well plugging – well abandonments
- Sidetrack cementing
- Balanced plugs
- Squeeze cementing

## 6. Problems and Solutions

- Poorly cemented annuli - trapped voids and/or fluids
- Thermal breakdown and/or cycling
- Poorly centralized casing strings
- Micro-annuli

## 7. What is needed for future cement blends and cement placement technologies

- Wish list of future cements
- What cement properties would the industry like to see developed

## 8. Case Histories and Past Experiences

Invited presenters or voluntary presenters with pertinent subject matter that they would like to present. Each of these presenters will need to submit their subject matter for approval several week prior to the workshop.

## 9. Conclusion of the workshop will be a panel discussion to review all presented matter to include questions and answers as well as any concluding discusses. All presenters should be present to participate in these final discussions.

*Agenda subject to change*

