

**USC CENTER FOR GEOTHERMAL STUDIES (CGS)
DISTINGUISHED SPEAKER PROGRAM (DSP)**

Presents

**Hydrogeochemical Techniques for Geothermal Resource
Exploration, Characterization and Evaluation**

By

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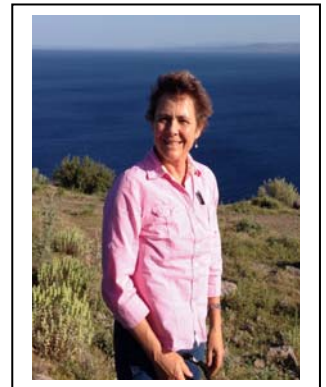
Thursday, April 9, 2015, 5:00-630pm Webinar

ABSTRACT:

By imaging fluid interactions in the subsurface, fluid samples collected from wells, springs, and fumaroles are analyzed to characterize a geothermal reservoir. During exploration, evaluation of fluid chemistry can provide indications of water source, reservoir rock, heat source and temperatures, as well as types of permeability, out flow and upflow zones and fluid phases (liquid-dominated, liquid±vapor, vapor-dominated). Information about these characteristics of the geothermal system provides important components of a conceptual model and provides critical information on where and how a geothermal system leaks constraining the conceptual model along with other conditions. After selecting an exploration program based on the conceptual model, geochemical analysis of fluid samples collected during exploration drilling and testing provides ongoing information to update and revise the conceptual model, revise additional drilling and provide initial indications of potential power generation design constraints. During operations and maintenance, geochemistry of produced fluids provides a real-time tools for evaluating the reservoir.

BIO:

Jill R. Haizlip is the president and Principal Geochemist of Geologica- She has over 30 years of experience in geothermal resource evaluation. Aside from geochemistry, she has expertise in all aspects of geothermal exploration, development strategy, production, well testing, environmental planning and compliance, and due diligence for financial and environmental risk assessment. She has worked on the integration of the resource characteristics with the design and operations of geothermal power generation to maximize efficiency within the environmental, economic and social settings of geothermal resources globally. She applies her understanding of geothermal resources to assist governmental agencies and operators to develop geothermal resources in compliance with the appropriate environmental regulations for the specific project.



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