



PCPG

Pennsylvania Council of Professional Geologists
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Hydrostructural Geology: The Geology within Hydrogeology

July 16, 2019

Doubletree by Hilton Hotel, Reading, PA

Proposed Agenda

- 8:00-8:30 Arrivals, Registration & Morning Refreshments
- 8:30 Overview of modeling flow in fractured media, introduction to hydrostructural geology and practical applications
- Structural planes, right sections, apparent dips, stratigraphic thickness, one-point problems, three-dimensional projections - problem solving session No. 1
- Three-point problems, structural contours, problem solving session No. 2
- 10:15-10:30 Break
- 10:30 Structure and topography, outcrop patterns, subsurface projections, problem solving session No. 3
- 12:00-12:45 Group Luncheon
- 12:45 Faults, fault motion, fault solutions, planar discontinuities in rock masses, characterization, spatial and orientational distribution, statistical analysis, structural data plotting. Problem solving session No. 4.
- Hydro-Structural Geology; Structural controls on groundwater flow. Flow in planar discontinuities, structurally-controlled anisotropy, approximations and porous medium equivalents
- 2:30-2:45 Break
- 2:45 Hydro-Structural Geology - Application of structural geology to groundwater flow and contaminant transport. Problem solving session No. 5
- Hydro-Structural modeling, structural controls on contaminant dispersion and distribution, modeled prediction of transport anisotropy. The special case of structural controls in karst aquifers
- 4:30 Adjournment, Evaluations, & Certificate of Attendance

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About Our Presenter

Thomas D. Gillespie, P.G., Senior Professional Geologist (Gilmore & Associates) - Tom is a licensed professional geologist providing risk reduction consultation to geo-resource-based businesses with expertise in water resource management, mining, oil & gas exploration, engineering geology, environmental risk management & investigation, and geologic hazard assessment & mitigation.

Tom served two consecutive six-year terms as a Gubernatorial appointee on the Pennsylvania State Registration Board for Professional Engineers, Land Surveyors and Geologists and served two terms as President of that Board. He represented Pennsylvania on the National Association of State Boards of Geology in which he is currently a member at large as a subject matter expert in structural geology, hydrogeology and engineering geology. He is a qualified expert witness in groundwater and contaminant fate and transport in all levels of the court system and has provided institutional expert consultation to government agencies, including appointment to the Department of the Army's Technical Assistance Team.

In addition to his role as Principal Geologist at Gilmore & Associates, Inc., Tom has been an adjunct professor of geology since 1988 and instructs continuing education courses for various organizations.