

Tuesday, January 17, 2006

Environmental and Engineering Group Dinner Meeting

Guadalajara Hacienda Restaurant • 9799 Katy Freeway
(south side of Katy Freeway between Bunker Hill and Gessner)
Social 5:30 p.m., Dinner 6:30 p.m.

Cost: \$25 Preregistered members; \$30 non-members & walk-ups

Make your reservations now on-line through the HGS website at www.hgs.org; or, by calling 713-463-9476 or by e-mail to Joan@hgs.org (include your name, meeting you are attending, phone number and membership ID#).

by *Anthony W. Gorody, PhD, CPG-9798*
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Environmental Considerations for Tight Gas Sands Development on Private Lands

Environmental concerns related to gas development are significantly extending unconventional resource drilling and development project life cycles. This is particularly evident in Rocky Mountain regions where private surface and mineral ownership is split. Both accelerated population growth and accelerated gas development programs are encroaching upon one another, thereby creating the greatest potential for conflict in urban areas. We will review and discuss approaches that various operators are implementing in the Piceance Basin to reduce conflict with surface use agreements, water well agreements, and baseline air and water sampling and monitoring agreements.

Surface owners and nongovernmental organizations (NGOs) have extrapolated their concerns regarding coalbed natural gas resource development to the tight gas sand resource. Both resources share potentially negative impacts associated with ground surface disturbances. These arise from the need to develop a relatively dense development infrastructure. As a result, surface use agreements are being increasingly used. In Colorado, surface owners without a surface use agreement can now request on-site

inspections from Colorado Oil and Gas Conservation Commission (COGCC). A recent landmark memorandum of understanding between BP and LaPlata County Commissioners proactively establishes terms to voluntarily regulate land use for infill drilling development of the Ignacio Blanco coalbed natural gas field. Similar proactive agreements are being drafted among tight gas producers and city development planners in the Piceance Basin.

*Surface owners
are increasingly
requesting water well
agreements*

Although surface water disposal issues and concerns regarding shallow groundwater withdrawal are not relevant to tight gas sand development, surface owners are increasingly requesting water well agreements. Because many water wells in Colorado are susceptible to drought and have poor yields and poor water quality, many operators are voluntarily conducting baseline sampling and monitoring surveys to document water well conditions. Their sampling and analysis protocols are similar to those required by the COGCC under the permitting requirements for infill drilling of the Fruitland Formation (Orders 112-156 and 112-157). ■

Biographical Sketch

Dr. Gorody received his Master's and Doctorate degrees in geology and geochemistry as a Weiss Fellow at Rice University. He is a consulting geoscientist with 26 years of diverse international and domestic industry experience. An advisor to oil and gas producers and state and federal regulators, he provides training and consulting services to address technical and environmental risk related to natural gas development and associated groundwater resources.



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