# COLORADO CAFÉ SCIENTIFIQUE

### TUESDAY 14 APRIL 2009 at the Wynkoop Brewing Company

http://www.wynkoop.com/

Corner of 18<sup>th</sup> and Wynkoop in LoDo, Denver About a block from Light Rail. Thirteen minutes by foot from Auraria.

### – Mining and Mineral Resources in the 21<sup>st</sup> Century– **Dr. Murray W. Hitzman**

Fogarty Professor of Economic Geology, Colorado School of Mines

Demand for mineral resources has been for several years extremely high, driven in large part by industrialization in China and India. The current recession will postpone but not end the world's growing demands. Mining in the 21st century will depend, to a great extent, on how well the mining industry can meet society's legitimate expectations for environmentally sensitive extraction of the materials needed to support living standards while keeping costs low enough to fuel worldwide economic growth.

Less intrusive and more productive mining may be achieved through discovery and mining of higher grade and smaller footprint deposits. In-situ mining technologies, where metals are leached from the ground utilizing chemical and/or biological agents, may obviate the need for excavation. Seafloor mining may allow us to directly extract metals from high-temperature hydrothermal fluids. Improved utilization of current mining wastes and mining openings (open pits and underground workings) may favorably impact both economics and public opinion. Most mining companies are still exploring for conventional, low-grade, bulktonnage deposits; given the long (and growing) lead time for discovery and development of mineral deposits, there is a danger of not having enough "unconventional" deposits in the pipeline for future development.

## *EVERYONE IS WELCOME.* The discussion starts at 6:30 in the Mercantile Room (no food service there). Come before 6 PM to leave yourself time to get something to eat, or stay and eat afterwards. We end around 8 PM.

There's no charge. The Wynkoop is generously providing the facility; we buy our own drinks. It is first come, first seated, and **seating is limited** so that everyone can take part in the discussion.

The Colorado Café Scientifique is organized by an informal group of President's Teaching Scholars and faculty from CU and institutions up and down the Front Range, as well as science fans from industry, government and elsewhere. We welcome your input, including ideas for speakers and topics. Bring them with you to the next Café, or e-mail them and any questions to John.Cohen@UCHSC.edu

#### Essential information on our Web site at http://CafeSciColorado.org