



# SEG Mentor

John Muntean



## Contact Information

Nevada Bureau of Mines and Geology  
 Mail Stop 178  
 University of Nevada Reno  
 Reno, Nevada 89557-0088 USA

+1 (775) 784-6691  
[munteanj@unr.edu](mailto:munteanj@unr.edu)

## Current Position and Focus (areas of research and/or interest in economic geology)

Research Economic Geologist, Nevada Bureau of Mines and Geology/ Assistant Professor, University of Nevada Reno

Interested in every aspect of economic geology – both research and exploration/mining.

### Areas of Expertise:

- Geology and geochemistry of ore deposits, especially Carlin-type gold deposits, epithermal gold deposits, and porphyry copper-gold deposits
- Mineral exploration
- Mine geology
- Geologic mapping
- Aqueous geochemistry
- Magmatic-hydrothermal processes
- Metallogeny of Nevada

### Current Research Projects:

- Geology of the Jerritt Canyon District, Nevada
- Carlin-type gold deposits of the Getchell district (joint project with Jean Cline)
- Hydrothermal alteration, Jarbidge district, Nevada
- Time-space relationships between gold mineralization and intrusions, Bald Mountain district, Nevada

## Relevant Education/Work Experience

### Education:

BS, Purdue University, 1986  
 MS, University of Michigan, 1989  
 Ph.D., Stanford University, 1998

### Work Experience:

Nevada Bureau of Mines and Geology (2005-present)  
 Senior Geologist, Placer Dome, Nevada (1999-2004)  
 Senior Project Geologist, Homestake Mining Nevada (1998-1999)  
 Geologist, Amax Gold, Chile (1993-1995)  
 Geologist, Santa Fe Pacific, Nevada (1989-1993)  
 Geologist, Atlas Precious Metals, Nevada (1988)  
 Geologist, USGS, Oregon (1986)

## Hobbies and Interests

My Family (wife-Donna, Kylie-10, John-9)  
 Basketball (I'm from Indiana, where it's a religion)  
 Baseball (hopeless Chicago Cubs fan)

## Nationality

USA

Skiing (not pretty - I'm from Indiana where it's flat)  
Model Railroading  
Photographing Trains  
Music (learning guitar with my son)

**SEG Activities (e.g. positions held, former student membership details)**

SEG Councilor (2005-present)  
Organizer for the SEG-sponsored forum entitled "World Class Controversies – Genesis of the Witwatersrand and Carlin gold systems" (May 2005).  
Coordinator for the SEG-sponsored student-mentor workshop held at the 2005 Geological Society of Nevada Symposium (May 2005).  
Instructor for Carlin-type deposits at SEG-sponsored short courses on gold deposits in Beijing China (Oct 2003) and Moscow in Russia (Nov 2004).  
Member of ad-hoc committee on mentorship (2003).  
Member of Student Affairs Committee (2002).

**Personal Philosophy on Mentoring**

When growing up in northwest Indiana, home of US Steel, Inland Steel, Bethlehem Steel, Standard Oil, Dupont Chemical, Continental Oil, I was expected to work in the mills as an engineer, a step above my father who was salaried and my grandfathers who were hourly. There was no way I was going to do that. I vividly remember turning on a PBS show in 1980 when I was 16. The show was on the modern day gold boom. I always had an interest in the American West, especially the prospectors of the nineteenth century. It blew me away that people were still looking for gold, and using science and technology to boot. Gold was \$800/ounce at the time! Then and there I decided I was going to become a modern day prospector.

At Purdue University, Robert Loucks, my first mentor, introduced me to science. For better or worse, that started me on a life long trek of bouncing back from research and industry and trying to bring the two together to a common interest. My career has taken me to the University of Michigan, where I worked with Steve Kesler (my second great mentor) on the Pueblo Viejo gold deposit in the Dominican Republic. From Steve I learned the importance of communication. Everything we do is a waste of time unless we can convey our results and ideas in a manner that the targeted audience can easily understand. Then in 1989, I traveled to Winnemucca Nevada to take my first real job as an exploration geologist with Santa Fe Pacific. There I met my favorite mentor, Wade Hodges, who taught me everything he knew and built my confidence by including me in every aspect of the exploration process. In 1992, I decided to jump back into research and got a PhD under Marco Einaudi at Stanford University, working on the gold deposits of the Maricunga belt in northern Chile. Marco passed down the Anaconda legacy of extracting as many secrets as you can from the rocks before jumping to conclusions. After graduating from Stanford in 1998, I jumped back into industry, first with Homestake, and then for six years with Placer Dome. During that time, I focused on Carlin-type gold deposits, quite the change from my epithermal and porphyry background to that point. At Placer Dome, Greg Hall served as a mentor, from whom I learned much about myself and learned to appreciate the viewpoints and creativity of others without sacrificing my scientific rigor. In 2004 I decided to jump back into research. In January of 2005 I began my "dream" position as Research Economic Geologist with the Nevada Bureau of Mines and Geology at the University of Nevada Reno, where

	<p>I am building an applied research program by working closely with the mines in Nevada.</p> <p>One of the few things I am certain of is that I would not be in the position I am now without Loucks, Kesler, Hodges, Einaudi, and Hall. I always feel guilty when around them. There is no way I am going to pay them back. It was not until very recently that I realized I was not the "mentee" anymore. I would have to "pay it forward", by becoming a mentor. I currently am the primary advisor of two MS students at UNR.</p> <p>I can't think of another profession more fun and exciting than economic geology.</p>
<p><b>Languages Comfortable Communicating With</b></p> <p>English</p>	<p><b>Other Relevant Information</b></p>