



Health and Safety Minute

February is Heart Health month!

Signs of Heart Disease

Chest Pain: It can be a sign of a heart attack.

Palpitations: Irregular heartbeats should be treated by a medical professional as soon as possible.

Lightheadedness: Can be associated with heart disease or another illness.

Fatigue or Lethargy: Being exhausted at irregular times or when fully rested can be serious signs of heart disease.

Shortness of Breath: Shortness of breath can be associated with the heart disease.

Colorado Section Chair Report

We had an excellent turnout for the SME Colorado Section's virtual trivia happy hour in January and are looking forward to another later this spring.

Grab your lunch and join us for our next virtual event on Friday, February 19 from 12:00pm – 1:00pm that will feature our rescheduled Henry Krumb lecturer Kwame Awuah-Offei! Kwame will be presenting on "New SEC Rules for Disclosure of Exploration Results, Mineral Resources and Mineral Reserves: What You Need to Know."

The 2021 SME Annual Conference & Expo and 123rd National Western Mining Conference is right around the corner! Several committee meetings begin the last week in February, followed by the virtual conference March 1-5, www.smeannualconference.com.

The date for our Annual Scholarship Fundraiser Golf Tournament is set for August 13 at Arrowhead Golf Club. Additional details and sponsorship opportunities will be available in the coming months.

Thank you for the opportunity to serve as chair of the Colorado Section. As always, please do not hesitate to reach out (hammers@golder.com) if you have any questions, comments, or concerns.

Stay safe and healthy,
Heather Lammers



Photo: pce.mst.edu

February Colorado Section Virtual Meeting

Please join us online from 12pm – 1:00pm on Friday, February 19th for a meeting of the SME Colorado Section. Dr. Kwame Awuah-Offei, as part of the SME Henry Krumb Lecture series, will be presenting on "New SEC Rules for Disclosure of Exploration Results, Mineral Resources and Mineral Reserves: What You Need to Know."

Join the Skype Meeting

<https://meet.lync.com/rcflp-com/jrd/N4PSKFHZ>

Join by phone

Toll number: +1 720-500-4358

Conference ID: 980347411#

Colorado Section Member Spotlight**Name:** Dennis Rugg**Profession:** Geotechnical engineer specializing in mine waste management; currently a Chief Geotechnical Engineer with Freeport McMoRan's Tailings, Crushed Leach, and Water Team**Education:** B.S. in civil engineering from Merrimack College, M.S. in civil (geotechnical) engineering from the University of Texas at Austin**Years in Industry:** 10+ in the mine waste field**What inspired you to join the mining industry and what do you enjoy most about your career?**

When I was a graduate student, seeking employment as a geotechnical engineer, I was not initially interested in working in the mining industry. I held a misconception that working in the mining industry would limit my career opportunities and limit the scope and breadth of the geotechnical engineering projects that I could work on. I could not have been more wrong. The engineer that hired me for my first job in the mining industry (Geotechnical Consulting with Golder Associates) explained how wrong I was – he noted that a mine could be compared to a small city and that any civil or geotechnical problem that I could possibly conceive of would need solving. There are deep and shallow foundations for processing facilities, power generating stations, water treatment plants; there are tunnels, bridges, roads, overland linear structures (conveyors, pipelines, etc.); there is dam design (seepage and stability), seismic response analyses, hydrology and hydraulics, complex geology, complicated settlement and consolidation problems, and much more. Not to mention these mines are located all over the world, in various climates, regions, and cultures. Once I heard things presented to me this way, I was sold. I have never looked back, and I would say that the engineer that hired me for my first job in mining was completely right – there is no limit to the type and complexity of the projects that I have worked on in the mining industry. Every project is unique, every project presents new challenges, and I continue to learn new things every day.

What are some noticeable changes or trends you have seen over time in the mining industry?

Mining is a cyclical business. This should not come as a surprise to anyone who has been in the mining industry for more than a few years. In my 10+ years in the industry, I would describe having been through two down-cycles, or maybe one down-cycle and a long slow recovery, depending on how you look at things. The first downturn happened not long after the start of my career. At first, I was discouraged and nervous, but as our team worked hard and remained dedicated, I realized that we emerged as a stronger team. While I cannot speak for other teams, my perception is that the heart of the mining industry includes a core team of hard workers, with loads of mental fortitude and perseverance. I love working with people in this industry, as I seem to find over and over that we share a lot of the same values.

What advice would you give to a young person pursuing a career in mining?

If you are excited about working on some of the largest civil/construction projects, the mining industry is a great place for you. There are countless puzzles that need solving. Join us in the future of mining – responsible mining, where the sustainability of our industry, protection of the environment, and safety of our workforce and the communities we work in are paramount. Innovation is happening all the time; this is an exciting time to start a career in mining.



Tax time creates a new season of giving to support SME and the SME Foundation

A new program allows you to use your state income tax return to make a big difference in your community!

If you're due a state income tax refund, this state program gives you the opportunity to use *some or all* of it to directly support a local nonprofit that matters to you like SME and the SME Foundation.

This new program is promoted through the ReFUND CO awareness initiative and lets you choose where your donation goes. All you have to do is:

- Decide how much of your state income tax refund to donate (all or a portion of it).
- Enter **SOCIETY FOR MINING, METALLURGY AND EXPLORATION, INC. and our registration number "20073003314"** in the Donate to a Colorado Nonprofit Fund line on your state income tax return or tax software – or just give this info to your tax preparer when you share your tax documents.

You can learn more details about the program at RefundWhatMatters.org.

Smile knowing you've helped an organization that matters to you!

**Please note: Individual taxpayer information is confidential and the Department of Revenue cannot send the names of taxpayers to SME. Therefore, SME will not know who its donors are and will not send a specific thank you to the donor unless you email a screenshot of your donation to the SME Foundation at smefoundation@smenet.org. Then we can add it to your giving history and issue you an acknowledgement letter for a tax deduction.*

Colorado Section Membership Renewal Reminder

If you have not done so already, please take this opportunity to sign-up for or renew your SME Colorado Section membership for the 2020 - 2021 year.

How to join or renew:

Online: Credit card payments can be made online by visiting our website and selecting the 2020 - 2021 SME Colorado Section Dues link under the Our Events heading.

<http://community.smenet.org/colorado/events/>

Mail: Check payments of \$25 payable to *SME Colorado Section* mailed to:

Phil Martin – SME Colorado Section Treasurer,
1400 16th St Suite 200
Denver, CO 80202-1471.

Why you should renew:

The section dues that we collect are vital to our ability to continue our programs. Our Section's focus is on advocating for our profession and industry here in our region. Some of the things that your Colorado Section dues help us to provide are scholarships for college students, majoring in mining disciplines; support for the Colorado State Science & Engineering Fair; provide teaching materials and perform outreach to Colorado science teachers through their State association, sponsorship for K-12 teachers participating in the *All About Mining – A Total Concept of the Mining Industry* course, and help support the Colorado Mining Museum and the National Mining Hall of Fame. So, by supporting the SME Colorado Section, you are directly supporting and advocating for your profession.

Upcoming Conferences and Events



March 1-5, 2021 Virtual



SME Colorado Section

Chair: Heather Lammers
hlammers@golder.com

Vice Chair: Melissa Chalona
mchalona@enganalytics.com

Treasurer: Phil Martin
pmartin@rcflp.com

Secretary: Amanda Davis
amanda.davis@maptek.com

Program Chair: James R. des Cognets
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Golf Tournament: Alex Holtzapple
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Publicity Director: Kelly Donahue Email
kdonahue@brwncaid.com

Director-at-Large: Eric Poeck
epoeck@hotmail.com

Director-at-Large: Jon Pianetti
jon.pianetti@gmail.com

Past Chair: Richard Schwering
rschwering@hardrock-consulting.com

The next EMCD meeting will be on **Thursday, February 11th, 2021 at 6:30 p.m.**

Join from PC, Mac, Linux, iOS or Android: <https://mines.zoom.us/j/91833933855>
OR iPhone one-tap: 12532158782,91833933855# or 13462487799,91833933855#
OR Telephone:
Dial: +1 253 215 8782 (US Toll) or +1 346 248 7799 (US Toll)
Meeting ID: 918 3393 3855
International numbers available: <https://mines.zoom.us/j/91833933855>
OR a H.323/SIP room system:
H.323: 162.255.37.11 (US West) or 162.255.36.11 (US East)
Meeting ID: 918 3393 3855
SIP: 91833933855@zoomcrc.com



We will have the pleasure of a presentation by **Professor Dr. Priscilla P. Nelson**

Making Glass and Fibers from Earth Resources

Population growth and increased global expectations for the quality of life drive the need for increased supply of raw materials produced from earth resources through mining. In contrast, the nation and the world are confronted by a looming crisis of escalating mine waste volumes representing environmental and health hazards. Today there are individual mines producing in excess of 200,000 tons of tailings per day. Mine waste management needs to go beyond disposal toward the beneficial reuse of the waste material, which will ultimately lead to zero waste mining. The researchers in the new Tailings Center (Mines, U. Arizona and CSU) will investigate all aspects of tailings disposal and re-use, and the "Glass from Tailings" team at Mines is investigating the use of earth resources (including waste rock and process tailings) to produce a silicate-rich melt that can be pulled into fibers, which in turn can be fabricated into construction and building materials, rebar, ballistic cloth, and other chemically inert products that have advantageous properties. We will develop the knowledge to design waste feeds and manufacturing processes that will produce such value-added products from mineral waste, and we will demonstrate their environmental and economical sustainability.

Dr. Priscilla P. Nelson came to the Colorado School of Mines in 2014 as Professor and Department Head of Mining Engineering at the Colorado School of Mines. She previously was Provost at the New Jersey Institute of Technology (NJIT), program director and senior advisor at the US National Science Foundation (NSF), and Professor in Civil Engineering at The University of Texas at Austin. She has an international reputation in geological and rock engineering, and has been involved in the underground construction industry for over 35 years. She worked for the US DOE and the State of Texas on the Superconducting Super Collider project, and she has served two terms on the U. S. Nuclear Waste Technical Review Board, appointed by Presidents Clinton and Bush.

Dr. Nelson has published more than 150 technical and scientific publications, and she is a Distinguished Member of the American Society of Civil Engineers (ASCE), former president of the Geo-Institute of ASCE, a lifetime member and first president and Fellow of the American Rock Mechanics Association, and Fellow of American Association for the Advancement of Science (AAAS). Dr. Nelson has received many honors and awards, including election to The Moles (1995) and induction into Tau Beta Pi as an Eminent Engineer (2007). In 2008 she received the Kenneth Andrew Roe Award from the American Association of Engineering Societies (AAES), and she was the 2011 recipient of the ASCE Henry L. Michel Award. In 2015 she was identified as one of the 100 Global Inspirational Women in Mining (by WIM/UK), and also was appointed to the Committee on Geological and Geotechnical Engineering of the National Academies. In 2016 she was appointed Chair of the Mine Safety and Health Research Advisory Committee of NIOSH/CDC. In 2018 she received the Outstanding Educator award from Underground Construction Association of SME.

She received her BS degree in geology from the University of Rochester (1970) and two master's degrees in geology (Indiana University, 1976) and structural engineering (University of Oklahoma, 1979). In 1983, she received her PhD degree from Cornell University.