

October 26, 2023

7:00 am Registration/exhibits open

8:00 am **Keynote: John T. Boyd II, John T. Boyd Company**
Title forthcoming

9:00 am **Technical Session 1: ETHICS**
Ethical Dilemmas and the Hidden Traps of Liability
R. Henry Moore, Fisher & Phillips
Ethics for the Consultants You Engage
Gary M. Hartsog, P.E., Alpha Engineering Services
Title forthcoming
Edward F. Zeglen, Jr., P.E., Zeglen Consulting

10:40 am **Technical Session 2: ENGINEERING PROJECTS I**
NIOSH Gas Well Research Updates: Ground Control, Ventilation, and Impacts on an Underground Mine
Dr. Peter Zhang and Robert Kimutis, NIOSH
Improved Productivity with Wide Head Continuous Miner and a Crawler Bunker Bolter Car System
Michelle Burich, Komatsu
Federally Funded Abandoned Mine Land (AML) Program Overview
Eric E. Cavazza, P.E., Tetra Tech
Analyzing Bolt Spacing Effects on Coal Rib Stability Through Numerical Simulation
Yuting Xue, NIOSH

12:20 pm Lunch

Keynote: Dr. Andrea Brickey, South Dakota Mines
Career Success – Perception and Resilience

PCMIA and student awards

2:30 pm **Technical Session 3: HEALTH AND SAFETY**
Hands-on Strategies for the Continuous Improvement of Workforce Readiness to Respond to a Mine Emergency
Jason Diamond, CONSOL Energy
New Mine Emergency Software
Kent Armstrong, Draeger Safety Canada, Ltd
Breathe Easy, Breathe Better: Clean Space Technology and the Art of Comfortable Protection
Tim Costa, CleanSpace Technology USA

4:00 pm **Reception** – sponsored by CONSOL Energy

October 27, 2023

7:00 am Registration/exhibits open

8:00 am **Keynote: Marc LeVier, SME President**
The Future of Mining and the Critical Mineral Carbon Ore

9:00 am SME awards

9:40 am **Technical Session 4: CRITICAL MINERALS/SUSTAINABILITY**
Consortium to Assess Northern Appalachia Resource Yield (CANARY) of Core-CM for Advanced Materials
Dr. Barbara J. Arnold, The Pennsylvania State University
Recovery of Rare Earth Elements from Acid Mine Drainage
Dr. Paul Ziemkiewicz, West Virginia University
Recovery of Rare Earth Elements from Coal Fly Ash – Process Simulation and Systems Analysis
Beatriz Dantas, West Virginia University
Critical Mineral Resources from Wastes: Characterization Informed Separations from Fossil Energy Byproducts
Dr. Christina Lopano, National Energy Technology Laboratory

11:30 pm Lunch

Keynote: Jamie Stilley, Amerikohl Aggregates
Exploration, Development, Production, Processing, Transportation and Reclamation in the Aggregates Business at Amerikohl

12:45 pm **Technical Session 5: AUTOMATION AND CONTROL**
Automation of Roof Bolting in Underground Coal Mines Through Electro-Hydraulic Control
Pat Willaman, Komatsu
Incorporating Automation and Control into the Mining Engineering Curriculum
Dr. Steven Schafrik, University of Kentucky
Mine Utility Vehicle and Rubber-Tired Mantrip Lithium-Ion Battery Environmental Sensitivity
David S. Yantek, NIOSH

2:25 pm **Technical Session 6: ENGINEERING PROJECTS II**
Mine Methane: Challenges and Opportunities
Jacquie Fidler, CONSOL Energy
Powering a 21st Century Net CO2 Negative Power Plant Using Waste Coal
Stephen Winter, CONSOL Energy
Methane Reduction Flares
Edward T. Boys, Perennial Energy