

**Southeast Mine H&S Conference**  
**NIOSH Preconference Workshop October 29, 2024**

***Shaping the Future of Safety***

TOPIC	DISCUSSION POINTS	PRESENTERS	TIME
<b>Introduction</b>	Introduction of presenters and attendees	All	8:00–8:30 am
<b>Health Equity in Mining</b>	<ul style="list-style-type: none"> <li>• Overview of underserved mining populations</li> <li>• Past and current role of women in mining</li> <li>• NIOSH research to improve health equity</li> </ul>	Casey Stazick	8:30 –9:30 am
<b>Break</b>			<b>9:30 – 9:45 am</b>
<b>How to process LiDAR for VR</b>	<ul style="list-style-type: none"> <li>• NIOSH has developed a workflow using open-source programs to process LiDAR scans for VR</li> <li>• Using NIOSH’s VR-MRT, you can import your LiDAR scans to create your own training scenarios</li> <li>• We will walk you through the process and talk about potential uses</li> </ul>	Jennica Bellanca & Tim Orr	9:45 – 11:00 am
<b>Lunch, open Q&amp;A</b>			<b>11:15 –12:30 pm</b>
<b>Heat, Health and Well-being</b>	<ul style="list-style-type: none"> <li>• Overview of NIOSH research focused on heat exposure</li> <li>• Impact of mine worker health and well-being</li> </ul>	Kristin Yeoman	12:30 – 1:30 pm
<b>Break</b>			
<b>Exposure Assessment Approaches</b>	<ul style="list-style-type: none"> <li>• The role of health sampling in health and safety programs</li> <li>• Highlighting sampling strategies and their strengths</li> <li>• Decision-making approaches to prioritize exposure controls</li> </ul>	Kendra Broadwater	1:45 – 2:30 pm
<b>Silica – Joint Presentation with Contractor Workshop Group</b>			2:30 – 3:15 pm
<b>Open discussion</b>		All	3:30 – 4:00 pm
<b>Wrap-up</b>			<b>4:00 pm</b>

**Presenter Bios**

**Jennica Bellanca, M.S.** Jennica Bellanca is a biomechanical engineer with the National Institute for Occupational Safety and Health (NIOSH). She earned a bachelor’s degree in bioengineering, and dual master’s degrees in bioengineering and mechanical engineering from the University of Pittsburgh. Ms. Bellanca has been working in the mining industry for more than 12 years as a human factors, safety researcher. Her work has primarily focused on virtual reality (VR) and

simulation, hazard recognition, collision avoidance, and haul truck health and safety. She is currently leading a collaborative effort to develop and evaluate a VR application for mine rescue training.

**Kendra Broadwater, M.P.H., C.I.H.** Kendra is a Research Industrial Hygienist with the National Institute for Occupational Safety and Health (NIOSH) Spokane Mining Research Division (SMRD). She has performed workplace exposure assessments in workplaces across the United States for NIOSH since 2013. Before recently joining the NIOSH Mining program and turning her focus to silica and noise exposure, she developed expertise in evaluation of exposures in nail salons and forensic chemistry laboratories and surface sampling methodology and survey development. She is interested in learning more about exposure assessment strategies used in mining (for silica and noise in particular) and barriers to adoption of Bayesian decision making in exposure assessment programs.

**Timothy Orr, B.S.** Timothy Orr is the team leader for the Human Integration Team at NIOSH's Pittsburgh Mining Research Division. He has been working on immersive and VR-related mine health and safety research projects for over 35 years. He is a graduate of Gonzaga University where he earned a Bachelor of Science degree in mechanical engineering in 1989.

**Casey Stazick** Casey is a Materials Engineer with the National Institute for Occupational Safety and Health (NIOSH) Spokane Mining Research Division (SMRD). Casey joined NIOSH in December of 2020 and is researching safety issues associated with the corrosion of metal underground mine support. Her research is focused on applying lab and field techniques to improve safety in mines faced with ground support challenges. Her other research includes revealing the unique occupational safety needs of women in the mining industry and ways to improve the workplace for them. Casey is the chair of the Diversity, Equity, Inclusion, Accessibility, and Belonging (DEIAB) committee at SMRD.

**Kristin Yeoman, MD, MPH.** Kristin is a medical epidemiologist. She collaborates with industry to conduct occupational health and safety research among high-risk occupations. She is currently the principal investigator of a study evaluating the cognitive effects of heat stress among workers. She also conducts data analyses of national and industry-specific health data. Kristin has been with CDC since 2011, when she became an Epidemic Intelligence Service officer based at the Nebraska Department of Health and Human Services. After completing EIS in 2013, she transferred to NIOSH in Spokane, WA and has been conducting occupational health studies since then. Prior to CDC, she worked in clinical medicine for the Indian Health Service (Navajo Area), Veterans Affairs, and overseas for Doctors Without Borders. She received her medical degree from the George Washington University, and her Master of Public Health from the University of North Carolina, Chapel Hill. She completed training in Internal Medicine at the University of Colorado, Denver.