

Megan Melgren, Kansas State University, Manhattan, KS for her project: *Geochemistry of Off-Axis Snake River Plain Basalts and Implications for the Footprint of Yellowstone Hotspot Volcanism*

Megan is an M.S. student at Kansas State University studying under Dr. Matthew Brueseke. She is working as a teaching assistant in the introductory geology labs and conducting research on the geochemistry of off-axis Snake River Plain basalts. Megan received her bachelor's degree in Geology with an Art minor from Missouri State University in 2024. She has always loved going outside and learning about the natural world. Megan is a 4th generation Kansas State University student, following in the footsteps of her dad, grandpa, and great-grandmother.



Megan's research is on off-axis basalts of the Central and Eastern Snake River Plain (C-ESRP). The Snake River Plain is a topographic low in southern Idaho formed, due to sinking induced by dense basalt and gabbro in the crust of the C-ESRP. These basalts are primarily olivine tholeiites formed after generally time-transgressive silicic caldera forming eruptions along the Yellowstone hotspot track. Most of these basalts erupted on the plain itself, however some eruptions occurred off of the plain, which denotes

them as "off-axis", including the two sites investigated in this research. These focus areas occur ~60 km north of the C-ESRP proper in the Idaho Basin and Range Province. Through field mapping, petrography, and major and trace element geochemistry, the connections between the two investigated locations and the volcanism of the C-ESRP will be discovered. The Lipman Research Award will be used to fund the procurement of major and trace element geochemistry and thin sections of the sampled lavas, as well as some of the travel expenses associated with collecting the samples and field mapping.