



EDUCATION

- Cornell University
 - Bachelor of Arts, Geology, 2003
- University of Colorado Boulder
 - Doctor of Philosophy, Geology, 2012

PRACTICE AREAS

- Geological/Geotechnical Site Characterization
- Seismic Risk Assessment
- Geologic Hazard/Risk Assessment
- Mine Infrastructure Development
- Hydrogeological Characterization
- sUAS Drone Mapping and Investigations

REGISTRATIONS

- Professional Geologist in WY

PROFESSIONAL AFFILIATIONS

- American Geophysical Union
- Colorado Association of Geotechnical Engineers
- Geological Society of America

CONTACT

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EXPERIENCE

Tarka Wilcox has more than sixteen years of practical and research experience in the fields of geology and hydrogeology. He specializes in site characterization, geotechnical investigation, seismic/geological hazard assessments, and remote sensing including photogrammetry and terrain analysis. Dr. Wilcox has been involved in projects including geological mapping, geologic hazard studies, slope stability modeling, geotechnical and geophysical subsurface investigations, identification and development of spring water sources for private industry and municipal clients, and seismic hazard analysis for mining infrastructure and hydropower projects on four continents. Dr. Wilcox is a licensed FAA Part 107 small Unmanned Aerial System (sUAS/drone) pilot, and is experienced with a variety of geotechnical, hydrological, and geophysical exploration and in-situ data gathering technologies.

REPRESENTATIVE PROJECTS

Geological/Geotechnical Site Characterization

- Rock Creek Ranch - Gunnison County, CO: Drilling and sampling campaign and hydrogeological in-situ testing design
- USTDA, Nyundo Hydropower Plant - Rwanda: Geological mapping and characterization of geological hazards*
- Naval Weapons Industrial Reserve Plant - Bedford, WA: Geotechnical and contaminant plume characterization*

Seismic Hazard Assessment

- USTDA - Betmai Hydropower Plant, Sierra Leone: Seismic hazard analysis, geological mapping, sUAS mapping*
- Hycroft Mine - Sulfur Mining District, NV: Seismic hazard assessment*
- Puli Basin - Taiwan: Geological and geomorphological mapping, seismic hazard analysis*

Geological Hazard/Risk Assessment

- East Lake Creek Ranch - Edwards, CO: Geological mapping and hazards assessment
- USTDA - Multiple Hydropower Sites, Kenya: Geological mapping; characterization of geological and seismic hazards*
- Alward Road - Orting, WA: Landslide mapping and 3D slope stability analysis*

Mine Infrastructure Development

- Raura Mine - Peru: Tailings storage site design consultation
- La Colosa Gold Mine - Colombia: Tailings/waste-rock storage site selection/evaluation*
- Gramalote Gold Mine - Colombia: Tailings storage site selection/evaluation*

Hydrogeological Characterization

- Poland Spring - Poland, ME: Geologic review and hydrochemical analysis*
- Frontier Springs - New Tripoli, PA: Structural geology, hydrochemical analysis, and silo construction oversight*

sUAS Drone Mapping and Investigation

- Vitro Plant - Creighton, PA: Thermal mapping of subsurface coal fire
- Solar Farm - Bladenboro, NC: Damage assessment orthomosaic
- Casa Grande Ruin; National Monument - Coolidge, AZ: Facility survey and condition assessment orthomosaic
- Oso Landslide - Darrington, WA: Structure from Motion (SfM) photogrammetry, topographic modeling, and change detection analysis*

**Indicates with previous firms*