



## RESEARCHER 3 GEOLOGIST – MN GEOLOGICAL SURVEY Job ID: 340567

### Special Notice for COVID-19

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The UMN has suspended hiring for most positions. However, we will continue hiring for positions critical to the University's mission and operations at this time. **Applications are being accepted for this position** and you are encouraged to apply. In-person interviews are suspended indefinitely and will be replaced by interviews in a virtual format. Thank you for your continued interest in working at the University of Minnesota.

### Qualifications

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#### Minimum/Essential Qualifications:

- Bachelor's degree in geology or related physical sciences and two years of related experience, or a combination of education and work experience in geology or earth sciences totaling at least six years. Related experience could include: undergraduate thesis, internship(s), professional work experience, and/or graduate school coursework experience.
- A valid driver's license
- A broad background in geology
- Availability for travel within Minnesota, usually in one-week (Monday - Friday) increments or less. The total amount of fieldwork is project-dependent.
- Interest in working outdoors in addition to office setting
- Willingness to learn new geological field, lab, and office skills
- Ability to work both independently and as part of a multidisciplinary team, depending on the task

#### Preferred Qualifications (the applicant does not need to meet these qualifications):

- Master's degree in earth sciences or related field, or combined education and work experience in geology totaling greater than six years
- Experience identifying igneous and metamorphic minerals and rocks in hand sample, thin section, and/or drill core
- Familiarity with complex igneous and/or metamorphic rocks or terranes
- Previous experience with geologic maps in a classroom, field, or similar setting
- Previous field experience, which may include field camp, independent research projects, work experiences, etc.
- Proficiency with Geographic Information Systems (GIS) and vector graphic software (e.g., Adobe Illustrator, AutoCAD, GIMP, Inkscape, etc.)
- Effective written and verbal communication skills
- Experience interpreting geologic features from aeromagnetic and gravity maps
- Proficiency using navigational tools such as a GPS, compass, and topographic maps
- Experience utilizing and/or interpreting large data sets to create geologic maps

### About the Job

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The MGS is seeking a highly motivated individual to bring their unique experience and perspective to our team. The main objectives of this position are to contribute to geologic mapping of the Precambrian bedrock of Minnesota, and to develop technical field and office skills as a map author. This is a continuing position, pending a one-year probationary period review. The individual will work independently as well as with a multidisciplinary team depending on the task. This position focuses on collecting, processing, and interpreting information about the Precambrian bedrock geology of Minnesota. The Researcher 3 will produce geologic maps and accompanying products to convey information to various public entities. The applicant is expected to have a solid foundation in geosciences, but on-the-job training and mentoring will be provided to ensure a successful transition into the role. The duties of the Researcher 3 may include but are not limited to the below list. Previous experience with all listed field or office duties is not required.

**Field-based tasks: (\*Fieldwork is project-dependent, and can be scheduled around an individual's needs in most instances. Fieldwork is typically done in teams of two to ensure safety. Field safety training is provided.**

- Navigate to, describe, and sample rock outcrops
- Identify minerals, rocks, and rock textures in igneous, metamorphic, and sedimentary rocks
- Take linear and planar structural measurements utilizing a Brunton (or similar-style) compass
- Hike, bushwhack, and occasionally camp (camping gear and equipment provided)
- Navigate on roads and in heavily wooded areas using a compass, GPS unit, and topographic maps
- Drive a variety of vehicles, from small sedans to 4WD pickup trucks on a variety of terrain, occasionally for long distances and for 4+ hours
- Describe drill core at archived and/or active drilling sites
- Occasional paddling, steering, and portaging a canoe
- Collect passive seismic and ground-based gravity measurements
- Attend and supervise drilling operations
- Direct the work of field technicians

**Office-based tasks:**

- Enter field data into databases utilizing a variety of software programs
- Create bedrock geologic map components using Geographic Information Systems (GIS)
- Design and construct map components, including correlation diagrams, cross-sections, and relevant figures, using Adobe Suite products
- Discern rock composition and texture using a petrographic microscope
- Analyze well cuttings and/or rock chips
- Query databases for information to support geologic mapping
- Review drilling records and revise bedrock interpretations
- Process and/or interpret geophysical (e.g., aeromagnetic, gravity, passive seismic, etc.) data
- Arrange for geochronological, geochemical, or other analyses, and interpret results
- Direct the work of field technicians

\* The Minnesota Geological Survey retains the right to change or assign other duties to this position.

## About the Department

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The Minnesota Geological Survey is a research and service arm of the Newton Horace Winchell School of Earth Sciences at the University of Minnesota. It investigates the geology of Minnesota and provides basic public information on the geology of the state. The Survey works with state, county, and regional offices to set up geologic data bases and provide technical guidance for water resource planning, land management and mineral exploration policy, energy system development, and other planning and resource management activities.

We are an off-campus location on Territorial Road., St. Paul (near Hwy 280 and University Ave.)

The Minnesota Geological Survey (MGS) serves the people of Minnesota by providing the geological information needed to support stewardship of water, land, and mineral resources. The MGS is an equal opportunity employer and is actively committed to making real change in diverse recruitment, hiring, and advancement within our community. The Diversity, Equity, and Inclusion committee at the MGS is working to develop and continually improve an inclusive and equitable climate in the workplace. Applications from members of historically underrepresented groups are especially encouraged to apply.

The University of Minnesota and the MGS value diverse identities and experiences, and honor disability as an important aspect of human diversity. The Disability Resource Center (DRC) works in partnership with students, faculty, and staff of the University to eliminate or minimize barriers and facilitate inclusion in the workplace. The MGS is committed to creating a pathway for employees with disabilities to be successful through accessibility and accommodations for all job duties.

## How To Apply

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Applications must be submitted online. To be considered for this position, please click the Apply button and follow the instructions. You will be given the opportunity to complete an online application for the position and attach a cover letter and resume.

Additional documents may be attached after application by accessing your "My Job Applications" page and uploading documents in the "My Cover Letters and Attachments" section.

To request an accommodation during the application process, please e-mail [employ@umn.edu](mailto:employ@umn.edu) or call (612) 624-UOHR (8647).

## **Diversity**

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The University recognizes and values the importance of diversity and inclusion in enriching the employment experience of its employees and in supporting the academic mission. The University is committed to attracting and retaining employees with varying identities and backgrounds.

The University of Minnesota provides equal access to and opportunity in its programs, facilities, and employment without regard to race, color, creed, religion, national origin, gender, age, marital status, disability, public assistance status, veteran status, sexual orientation, gender identity, or gender expression. To learn more about diversity at the U: <http://diversity.umn.edu>.

## **Background Check Information**

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Any offer of employment is contingent upon the successful completion of a background check. Our presumption is that prospective employees are eligible to work here. Criminal convictions do not automatically disqualify finalists from employment.