

Researcher 7 (9742R7)
Job Requisition 312068
Minerals – Metallurgy – Mining Initiative
Natural Resources Research Institute
University of Minnesota Duluth
(www.nrri.umn.edu)

Position Description

The Minerals – Metallurgy – Mining (M³) Program at the Natural Resources Research Institute (NRRI) conducts a wide variety of research pertaining to characterization and optimization of mineral resources in Minnesota. This includes research related to: 1) developing effective and efficient methods for mineral exploration; 2) evaluating mineral potential across the state; 3) conducting studies related to mineralogical characterization associated with environmental evaluations and remediation; 4) developing environmentally responsible, efficient and cost-effective mineral processing flow sheets and processes; 5) evaluating creative and economically feasible methods and uses for mining by-products and co-products; 6) cooperative development of the definition and maintenance of the social license to operate; 7) analysis of the true costs and benefits of mineral extraction utilizing life cycle analysis; 8) training current and future geoscience professionals by means of workshops, short courses, and field courses; and 9) working in cross-institute teams to develop new knowledge and solutions associated with the State's natural resources. All work in the M³ Initiative is conducted to be consistent with the NRRI's mission to "deliver research solutions to balance our economy, resources, and environment for resilient communities." Employees in the M³ Initiative work collaboratively with researchers and scientists in other NRRI programs including Water, Renewable Energy, Forestry and Land, and Wood Products and Bioeconomy. All programs are supported by the University of Minnesota Duluth Center for Economic Development.

The M³ Program is currently seeking a Researcher 7 position that will serve as senior contributor to the M³ Program. This position will involve both administrative and research responsibilities as Program Manager for the Economic Geology group. Administrative duties will include project management, budget management, strategic planning and grant writing. Research is anticipated to take place in a variety of disciplines involving local, state, federal, public and private partners, including but not limited to: 1) evaluation of the mineralogical, lithological, structural, geochemical and spatial attributes of Minnesota's geological resources; 2) development of research initiatives associated with "responsible" mining and mineral processing; 3) development and teaching of field and/or classroom professional workshops and courses related to mineral resources and mineral resource extraction; 4) working closely with personnel to develop projects and conduct research with other NRRI programs; and 5) other geological / metallurgical / environmental / engineering projects. Projects may require overnight travel, working outdoors in any season, and strenuous physical activity in challenging settings and conditions. Other potential projects may be pending with similar job requirements and duties will be assigned to those as the need arises. The project mix may be contingent on funding resources.

Job Responsibilities:

1. Independently propose, develop, and conduct research related to field and/or laboratory research associated with M³ Program project activities in such disciplines as economic geology, minerals exploration research, minerals characterization, minerals processing, impact control (land/water/air), and "responsible" mineral development;
2. Supervise and participate in research team activities, including design and/or implementation of field and/or laboratory-based research, organization of data, interpretation of data, and presentation of data;
3. Assist in the development of strategic planning for the M³ program

4. Assist in the planning and teaching of various workshops, short courses, and field courses aimed at professional, student, and public audiences;
5. Write technical reports and/or journal manuscripts, and publish geological maps in a variety of formats;
6. Design and develop spreadsheets / databases for data evaluation, construct/evaluate/interpret geographic information systems utilizing ESRI GIS software programs and other commercially available 3-dimensional data management / modeling / planning software;
7. Conduct statistical analysis of project datasets;
8. Supervise and conduct laboratory and field-based research following established safety protocols, standard operating procedures, and Quality Assurance/Quality Control (QA/QC) guidelines;
9. Supervise NRRI employees, as well as temporary and/or student workers in both field and laboratory settings;
10. Other duties as needed or as funding dictates.

Minimum Qualifications:

- PhD in geological sciences, geological engineering, geophysics, or related fields from an accredited college or university.
- Minimum five years exploration/mining-related industry experience, and a general knowledge of sustainability associated with the minerals industry.
- Demonstrated knowledge of mineral resources and geological terranes similar to those that occur in Minnesota.
- Experience and proficiency conducting and managing geological field mapping, drill core logging, petrographic investigations (transmitted and/or reflected light), lithochemical investigations, mineral chemistry investigations, and geophysical investigations.
- Expertise with database and/or spreadsheet development, data analysis, and geospatial analysis using ESRI ArcGIS geographic information systems (GIS).
- Experience and proficiency using three-dimensional modeling software such as GoCAD and/or Voxler.
- A record of publishing peer-reviewed research papers and geological maps.
- Demonstrated experience to lead by influence, contribute as a leader, build networks, and collaborate and work effectively in a diverse and multidisciplinary team environment.
- Excellent written communication skills; demonstrated skills in writing, editing and organization of data.

Preferred Qualifications:

- University level teaching experience.
- Demonstrated knowledge of the mineral resources and geological attributes of the Duluth Complex and Minnesota's greenstone belts.
- A record of publishing successful grant proposals.
- Experience conducting statistical analysis of datasets utilizing statistical software.
- Experience developing and presenting professional public presentations.
- Excellent verbal proficiency in the English language.

Applications must be submitted online. To apply for this position, go to <http://www1.umn.edu/ohr/employment/> and search for job opening 312068. Click on the job title to view the job details and application instructions.

Complete applications must include: the online application, letter of application detailing how you meet the qualifications listed above, CV/Resume, and name, address, telephone number and e-mail of three references.

The cover letter and CV/resume will be attached during the application process. First submit the application and then return to the "My Activities" page to attach the additional documents. Final applicants may be required to provide additional information (i.e. Statement on Diversity). Completed online applications will be considered beginning September 1, 2016. This position will remain open until filled. Desired start date is October 1, 2016.

Please send any inquiries to Patrice Hell, phell@d.umn.edu.

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

Please Note: If you have started receiving retirement annuity payments from the Minnesota State Retirement System (MSRS) or Public Employees Retirement Association (PERA) your eligibility for this position may be impacted. Please contact U of M Benefits at 1-800-756-2363 for any eligibility limitations.

Smoking and chewing tobacco and the use of electronic cigarettes is prohibited on all UMD property, including indoor facilities, campus grounds and University vehicles.

Background Check Information:

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.

Diversity:

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>.

The University of Minnesota is an Equal Opportunity Educator and Employer.