

CENTER FOR MINERAL RESOURCES SCIENCE

BYLAWS

August 9, 2018

Article 1 – The Center for Mineral Resources Science

A. Name.

The collaborative research center provided for in these Bylaws is named the Center for Mineral Resources Science (hereinafter referred to as “CMRS”).

B. Background.

The Board of Trustees of the Colorado School of Mines (hereinafter referred to as “MINES”) and the Director of the U.S. Geological Survey (hereinafter referred to as “USGS”) established the CMRS through an addendum agreement to the Memorandum between the U.S. Geological Survey and the Board of Trustees of the Colorado School of Mines, dated August 3, 2016 (hereinafter referred to as “the addendum”).

C. Purpose.

The CMRS will leverage the capabilities of MINES, USGS, other governmental agencies, non-profit organizations, and industry to collaborate on the development of a research center that focuses on research of mineral resources. The CMRS will provide an educational environment to produce future leaders who will help meet the challenges of global exploration, mining, and sustainable development of mineral resources. Such collaborations will combine intellectual capabilities and laboratory resources to meet standards for mineral material program efficiency, which is critical for supporting the economic wellbeing and future growth of the Nation and will benefit communities worldwide.

The CMRS will bring together leading experts in the fields of ore deposit genesis, mining, metallurgy, and environmental studies to further enhance the understanding of mineral resources science. MINES faculty and USGS scientists will work jointly to form research and training collaborations with other universities and government agencies, both nationally and

internationally. As a result of these collaborations and gained efficiencies, the CMRS is expected to become a global leader in mineral resources research. The CMRS will accelerate the growth of MINES research and teaching programs by enhancing research funding opportunities through science foundations, Federal agencies, non-profit organizations, and the international mining and exploration industry.

The mission of the USGS will be enhanced by gaining access to faculty, research and postdoctoral scientists, and students, which will help broaden the scope and expertise of USGS research projects. The CMRS will allow USGS personnel, facilities, and laboratory space to be a vital part of a dynamic, university-based research environment. This will provide USGS scientists with access to academic and research facilities and opportunities not currently available to them, and enhance integration of MINES graduate students into USGS research projects. Participation of the USGS will also enhance research funding opportunities through leveraging with CMRS members and collaborators on USGS mission-oriented research efforts.

The mission of MINES will be enhanced by gaining access to USGS personnel, facilities, and laboratory space to achieve the parties' mutual research goals. Research topics addressed by the CMRS will include new and innovative methods for mineral exploration, understanding fundamental processes of ore deposit genesis, developing new techniques for mineral resource assessments, and unraveling the environmental consequences of historic and modern extraction of mineral resources.

D. Location.

The CMRS will ultimately be located on the MINES campus in Golden, Colorado. Efforts will be made by both parties to allow future co-location of members and laboratories on campus. Until such time, scientists and laboratories will be housed on both the MINES campus in Golden and at the Federal Center located in Lakewood, Colorado.

Article 2 – Responsibilities

A. Advisory Committee. As outlined and agreed to in the addendum agreement to the MOU, dated August 3, 2016, the CMRS will be led by an Advisory Committee that will provide oversight for general research directions and CMRS resource management. The Advisory

Committee is responsible for helping to identify the mineral resource research frontiers and potential funding opportunities for the CMRS to help meet the growing global demand for mineral materials.

The following members will comprise the Advisory Committee: 1) Two (2) scientist co-directors who will lead the CMRS on behalf of MINES and USGS; 2) two (2) research-active faculty members from MINES, designated by MINES; 3) one (1) USGS Mineral Resources Program coordinator or her/his designee; 4) one (1) research-active USGS scientist, designated by the Associate Director Energy and Minerals of the USGS or her/his designee; and 5) at least one (1), but not more than three (3) industry representatives with relevant experience and expertise, selected jointly by MINES and USGS.

B. Co-directors. The co-directors are responsible for coordinating across their respective organizations to provide collaborative leadership of the CMRS for research and operational matters. The co-directors must be active researchers in mineral resource sciences. They are responsible for assuring a supportive research environment established by the Advisory Committee.

C. MINES and USGS. MINES and USGS are responsible for the salary costs in support of the respective co-directors. Both MINES and USGS members of the CMRS will reflect the broad mineral resource community and will be composed of MINES and other university faculty and associated members, USGS staff, as well as partners from mineral exploration, mining, and minerals-related environmental sciences companies.

Article 3 – Membership of Colorado School of Mines Academic Faculty

A. Eligibility.

MINES Tenured and Tenure-Track Faculty and Research Faculty, including but not limited to, professors, associate professors, assistant professors, research professors, research associate professors, research assistant professors, professors of practice, and faculty on transitional retirement conducting research on the geology of mineral deposits, sustainable development, and remediation are eligible to join the CMRS or participate on the Advisory Committee following approval by the CMRS Advisory Committee.

Other MINES Non-Tenured-Track Faculty, including but not limited to, emeritus faculty, teaching professors, teaching associate professors, teaching assistant professors, adjunct professors, visiting professors, visiting scholars, postdoctoral fellows, and research associates are eligible to become members of the CMRS following approval by the CMRS Advisory Committee and the MINES center co-director.

Graduate students conducting research at the CMRS are not eligible to be considered as members of the CMRS.

B. Privileges.

All CMRS members are allowed to participate in all activities of the CMRS and are expected to contribute to the shared governance of the CMRS. CMRS members can use their affiliation with the research center on publications, presentations, and other outreach materials. Graduate students supervised by CMRS members are also allowed to use their affiliation with the research center on publications, presentations, and other outreach materials.

C. Termination.

Membership in the CMRS will be reviewed by the CMRS Advisory Committee annually. Membership may be terminated if a member has not conducted relevant research for more than three (3) consecutive calendar years. Membership automatically terminates if an Academic Faculty member leaves MINES and no longer has a contractual relationship with MINES.

Article 4 – Membership of U.S. Geological Survey Personnel

A. Eligibility.

A USGS scientist must obtain the approval of their supervisor and center co-director to participate as a member of the CMRS in the following capacities: principle investigator, research advisor, research support, or Advisory Committee member. Memberships for USGS participants to the Advisory Committee are limited to permanent Federal employees. The Associate Director for Energy and Minerals of the USGS or his/her designee is the selecting official for both USGS members of the Advisory Committee and the USGS co-director for the CMRS. All USGS participants must follow standard USGS Fundamental Science Practices policies on all matters as

outlined by the procedures and guidelines issued by the USGS Office of Science Quality and Integrity (https://www2.usgs.gov/quality_integrity/).

B. Privileges.

All CMRS members are allowed to participate in all activities of the CMRS and are expected to contribute to the shared governance of the CMRS. CMRS members can use their affiliation with the research center on publications, presentations, and other outreach materials.

C. Termination.

Membership automatically terminates if a USGS employee is no longer officially affiliated with the USGS, either as an employee or an emeritus scientist. The Advisory Board may terminate membership if a USGS employee becomes inactive in mineral resource research.

Article 5 – Membership of Industry Partners

Mineral industry companies are able to participate in CMRS through providing research scientific expertise, topical studies, and funding to support the goals of the CMRS through collaboration with MINES or USGS. Funding arrangements will follow standard procedures established by MINES and through Technical Service and/or Cooperative Research and Development Agreements (CRADA), as appropriate, with the USGS.

Article 6 – Method of Operation, Structure of the Center for Mineral Resources Science

A. Leadership and Governance.

The Advisory Committee will be composed of MINES and USGS members as stated in Article 2, Responsibilities. The goal of the Advisory Committee is to provide overarching leadership for CMRS. The Advisory Committee will meet on a bi-annual basis and will be chaired on a rotational 2-year basis by the CMRS co-directors. The presence of at least 75 percent of the primary or alternate designees from MINES and USGS will constitute a quorum. The Advisory Committee will reach agreement by consensus. A consensus agreement is one that all group members can support, built by identifying and exploring all parties' interests, and by developing an outcome that satisfies these interests to the greatest extent possible. For purposes of business,

“consensus” means votes of affirmation or no objection by members present at the time of the vote.

For issues directly affecting the programs or prerogatives of one or more entities not present at the time of the vote, then votes of affirmation or no objection will be obtained from each entity prior to the proposal being placed into effect. Nothing in this section shall be construed to suggest the Advisory Committee may make decisions that impact or are contrary to the statutory or regulatory mandates of any participating entity.

B. Funding.

This document does not obligate either party to expend appropriations, or commit or obligate resources. Any activities involving the exchange, reimbursement or contribution of resources, including funds, between the parties will be handled in accordance with applicable laws, regulations, policies and procedures. Such activities will be documented in separate written agreements, including, but not limited to, CRADAs, Technical Assistance Agreements, Intergovernmental Personnel Act Agreements, and Cooperative Agreements.

C. Amending the Bylaws.

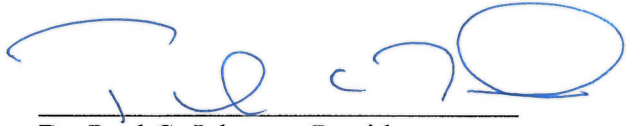
The Bylaws that govern the CMRS will be reviewed annually and amended, as needed, by the Advisory Committee. Any changes to these Bylaws will need to be reviewed and confirmed by MINES Administration (i.e., the Office of Research Administration or the Office of the Vice President of Research and Technology Transfer) and the USGS Office of the Director.

Article 7 – Reporting

Key activities of the CMRS will be summarized in an annual report for dissemination to center members and the public at large, as appropriate. The MINES co-director will compile a report annually, which will be used to provide accountability to MINES administration. The USGS co-director is responsible for compiling the activities of USGS researchers annually as well. Center members are responsible for sharing any relevant information needed to prepare the annual report.



Jim Reilly, Director
U.S. Geological Survey



Dr. Paul C. Johnson, President
Colorado School of Mines

9-Aug-2018

Date

8/9/18

Date