

Peer Review Summary Document

(1/17/2017)

Peer Review Plan

<https://www.usgs.gov/atom/73828> [20 KB PDF].

Title and Authorship of Information Product Disseminated

Mineral resources of the Sagebrush Focal Areas of Idaho, Montana, Nevada, Oregon, Utah, and Wyoming, W.C. Day, T.P. Frost, J.M. Hammarstrom, and M.L. Zientek (editors).

Peer Reviewers Expertise and Credentials

Chapter A

Peer reviewer #1: Research geologist with a PhD in geosciences from the University of Arizona and an expert in the fields of mineral resource assessment, mineral economics, and economic geology.

Peer reviewer #2: Research geologist with a PhD in geological sciences from the University of Colorado with expertise in economic geology, isotope geochemistry, and inorganic geochemistry.

Peer reviewer #3: Research geophysicist with a PhD in geology from the University of California, Berkley and expertise in potential field geophysics.

Chapter B

Peer reviewer #4: Research geologist with a PhD in economic geology from the Colorado School of Mines and expertise in ore deposits and models and their application to complex geologic environments.

Peer reviewer #5: Research geologist with PhD in geology from the University of Washington. The reviewer is an expert in the regional geology of the Great Basin northern Nevada, having worked and published numerous articles on the geology and ore deposits of the region for over four decades.

Peer reviewer #6: Research geologist with a PhD in geology from the University of Oregon and a background in general geology, geochemistry, and economic geology.

Chapter C

Peer reviewer #7: Research geologist with PhD in geology from Stanford University. Reviewer is an expert in economic geology and the geology of the northern Rocky Mountains, including the Idaho area discussed in the manuscript.

Peer reviewer #8: Research geologist with a PhD in geology from University of Oregon and an expertise in igneous petrology, economic geology, and isotope geochemistry.

Peer reviewer #9: Research geologist with a PhD in geosciences from the University of California, Santa Cruz and expertise in general geology and igneous petrology.

Chapter D

Peer reviewer #10: Research geophysicist with a PhD from the University of Oregon with a specialty of potential field geophysics, regional geology and geophysics, mathematical geology, mineral exploration, economic geology, and petrophysics.

Peer reviewer #11: Research geologist with a PhD in geological sciences from the Florida State University and expertise in tectonics, geochronology, and geology.

Chapter E

Peer reviewer #12: Research geologist with a PhD in geology from Syracuse University and expertise in ore deposits hosted in Precambrian terranes.

Peer reviewer #13: Research geologist with a PhD in geology and geophysics from the University of Minnesota. Reviewer is an expert in mineral assessments and economic geology.

Data

Peer reviewer #14: Physical Scientist with an MSc in Geography from the University of Nebraska-Lincoln specializing in geospatial information services (GIS) and remote sensing and has a background in geology spatial analyses, handling large and complex datasets and knowledge of Federal Geographic Data Committee (FGDC) metadata requirements.

Peer reviewer #15: Geologist with an MSc from George Mason University with an emphasis in GIS. The reviewer has a strong background in geology, ore deposits, and mineral resource assessments along with knowledge of FGDC protocols and data management requirements.

Charge Submitted to Peer Reviewers

The reviewers were asked to make an objective evaluation of the research, with particular emphasis on whether it accurately conveyed the information. The reviewers were notified that the subject matter could receive attention on a nationwide scale and be scrutinized at a high level of detail. The reviewers also focused on the application of the relevant ore deposit models for the locatable mineral resources.

Summary of Peer Reviewers Comments

Chapter A: The reviewers offered highly constructive and useful editorial suggestions and recommended reference citation changes.

Chapter B: Comments on the scientific content mostly included those regarding geological summaries and tract descriptions. All reviewers expressed major concerns with the clarity and inaccuracies of the figures and recommended changes. The reviewers provided many constructive editorial comments, suggestions, and corrections (i.e., word usage, phrasing, punctuation, and syntax, formatting style, and organization) as well as comments on references citations.

Chapter C: The reviewers indicated where they believed major work in the tables and methods and analysis sections was needed. They recommended including clearer linkages between these sections and the Chapter A methods and procedures section. The reviewers also made extensive comments related to clarifying the regional geology and ore deposits content.

Chapter D: The reviewers commented that the section on bentonite resource potential needed more work. Note, however, that there is extremely limited publically available geologic information that constrains the assessment and therefore, a predictive model for the occurrence of bentonite was

generated specifically for the study area covered in this report. The reviewers also provided constructive editorial comments, which were incorporated.

Chapter E: The reviewers recommended more coordination among the figures and tables and provided highly constructive and useful suggestions related to editorial and reference citation changes.

Data: In general, comments on the data (polygon files), the attributes, and the associated metadata were constructive and helpful and nearly all were accepted without modification. Reviewers commented that on the draft data there were differences in trace in a few of the assessment unit boundary polygons compared to the base geology. Authors revised the smoothing techniques used to match the source data. The reviewers also commented on the text of the metadata and provided guidance on how the metadata could be better linked to the content of the report.

Summary of USGS Response to Peer Reviewers Comments

Overall, the majority of the scientific related peer reviewers' comments were accepted as suggested or modifications were made to address them. In some cases, tables and figures in the manuscript were extensively revised as part of addressing reviewer comments. Comments from the data reviewers were addressed in that corrections or modifications were made accordingly. In general, virtually all comments from all of the reviewers were accepted and these comments helped improve the product. Suggested editorial changes (related to grammar, organization, consistency, clarity and sentence structure) and reference citation changes were incorporated in the chapters and the data as appropriate. After initial release of the publication, additional revisions were made and documentation of the version history indicating details of these revisions is available.

The Dissemination

The published information product was released as a USGS Scientific Investigation Report and is available at <https://pubs.er.usgs.gov/publication/sir20165089>.