

# Data Preservation Program Denise Herman

### Introduction

In 1919, the Montana State Legislature directed the MBMG to collect and preserve mining- and geology-related data about Montana's resources. The MBMG's Data Preservation Program continues to archive this information in a diverse collection of maps, reports, photographs and files for more than 4,500 Montana mining properties. The program also manages special collections that include drillhole and borehole records, historic maps, and collections of the professional work of notable geologists.

In addition to collections of digital and paper materials, the Data Preservation Program accessions collections of drill core, ore samples, thin sections and other geologic material forms.



*Dr. Chadwick's economic geology samples preserve specimens from Butte, Montana.* 



Compact storage provides easy access to mining-related files organized by counties.

#### Collections

New acquisitions can add information and context to collection materials from different sources, offering unique insights and more complete research potential. Some donations complement current holdings or information held by other archives and agencies.

For instance, the Anaconda Mining Company Research Collection, acquired in the 1990s, secured invaluable geological materials and documentation, including samples from now-inaccessible Butte mines. The Data Preservation Program successfully rescued some Butte mine drillcore at risk of disposal in 2015. A scanning project initiated in 2019 to create digital surrogates of all known Butte Stope Books preserves detailed maps of the city's underground mine workings. Combining information from these three discrete sources through the Data Preservation Program broadens our understanding of Butte's ore deposits and supports future research and critical mineral resource exploration.

#### FOR MORE INFORMATION:

To learn more about collections managed by the Data Preservation Program, or to donate, visit:

https://www.mbmg.mtech.edu/Montana-Geology/DataPreservation/main.asp

#### **Recent Acquisitions**

Dr. Robert A. Chadwick, a Geology Professor at Montana State University from 1961 to 1985, created a research and teaching collection of samples from ore deposits in Montana and elsewhere. He published his research on igneous petrology, mainly focusing on economic mineral deposits and geothermal systems, in scholarly journals, with the USGS, and with the MBMG.

Comprising roughly 5,400 specimens, the Chadwick collection was primarily gathered between 1960 and 1970 from sites that are no longer accessible.

Dr. Todd Feeley, a Geology Professor at Montana State University from 1996 to 2015, devoted his research to igneous petrology related to volcanism.

The Feeley collection of approximately 300 samples supported his published research of the geochemistry and geochronology of the Absaroka Volcanic Supergroup and several Alaskan islands.



The Feeley collection contains a variety of sample forms from hand samples to separates.

Dr. Don Winston established our knowledge of the sedimentology and stratigraphy of the Belt Supergroup through decades of measuring stratigraphic sections across Montana.

The Winston Collection includes information that corresponds to a previous and separate donation of Belt drill core and contains published and unpublished reports, stratigraphic sections, personal papers, photographic materials, and notes from the 1960s through the 2000s. Many of the stratigraphic sections include detailed facies descriptions not included in published excerpts.

Tom Chadwick, an exploration geologist, donated files from his own exploration work at mining locations across western Montana. This collection of maps,



A newly funded project will include scanning and rehousing all maps stored in our main office space.

reports, notes, and drill logs expands on our current holdings and may support new examinations of these areas.

## Lasting Legacies

Every year, valuable information and geologic materials face loss, destruction, or disposal by individuals and institutions who are unaware of their enduring educational and research value. The MBMG Data Preservation Program encourages and accepts donations of these items to preserve and make them publicly available for future research.

Our collections continue to grow, thanks to generous collection donations from private and commercial contributors.



Don Winston's handwritten sections contain detailed notations about the stratigraphy of the studied area.