

Final Technical Report

**Prepared for the U.S. Geological Survey
National Geological and Geophysical Data Preservation Program
Award No. G11AP20175**

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**METADATA CREATION FOR THE HISTORIC MINE MAP COLLECTION
CALIFORNIA GEOLOGICAL SURVEY LIBRARY**

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By

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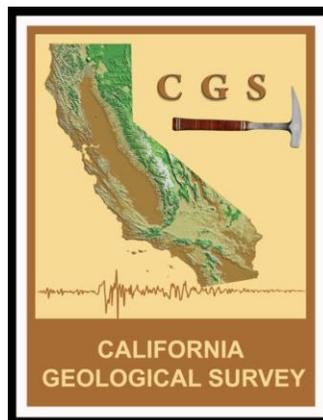
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ABSTRACT

Funds provided through the U.S. Geological Survey – National Geological and Geophysical Data Preservation Program (NGGDPP) Award no. G11AP20175, enabled the California Geological Survey (CGS) to support one project outlined on the NGGDPP FY-2011 Grant Objective 2 – create metadata. In this project, CGS conducted an inventory of rolled mine map collection and created metadata for 434 maps.

The CGS Library in Sacramento maintains a large collection of Historic Mine Maps acquired over the past century by CGS. These maps from the late 19th to 20th centuries show the surface location of mines, mining districts, underground workings of individual mines, as well as other mining and mineral related information for California the west. The collection is accessed on a regular basis by CGS and Department of Conservation staff, consultants, governmental agencies, researchers, and the general public for a variety of uses.

Creating metadata provided an opportunity to evaluate the condition of the maps and to properly repair and store them. The metadata will also be useful to CGS as an expedient method for locating relevant maps for staff and other researchers. The maps will be intended to be scanned and put on the CGS Digital Archive website with the accompanying metadata.

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FIGURE 1- Extract of metadata showing the different fields for the element **Condition**.

FIGURE 2 – Example of scanned map from collection.

DATA PRESERVATION FOR THE CALIFORNIA GEOLOGICAL SURVEY

Introduction:

This report covers the metadata creation project that was funded in part through the Funds provided through the U.S. Geological Survey – National Geological and Geophysical Data Preservation Program (NGGDPP) Award no. G11AP20175.

The Historic Mine Map Collection had been neglected for many years. As they were subject to different moves and shipped in from different branches and field offices of CGS, they were often rolled together by the dozens and stored haphazardly in cardboard boxes or oversize map tubes. Without an existing list or even identifying marks they were nearly impossible to use.

The Goals of this project were: 1) to create an accurate catalog of the entire Historic Mine Map Collection; 2) increase collection visibility and availability to users; and 3) have a means to evaluate and prioritize future preservation needs.

Project Description:

The project began July 1st, 2011 with the initial phase ending June 30th, 2012. Once the collection was identified and procedures for handling and storing maps were determined, the maps were individually unrolled, reviewed and recorded. The first step for recording the maps was to prepare a Microsoft Excel template that would hold all pertinent information to be recorded. Template elements and definitions used for this project are as follows:

Element Name	Name Definition
Box #	Physical location of map
ID	Unique identification number created by CGS for this collection
Title	Title of map either indicated by map itself or created by CGS based on map description
Location	Describes location of map coverage. Based upon given information such as county, city, district, or coordinates if provided by map
Responsibility	The person or organization responsible for the creation of the map.
Dimension	The size of the physical map in inches when unrolled.
Scale	The scale of the map
Material	A standardized description of the material on which the map was created (paper, vellum, mylar, canvas, etc.)
Color	Whether the map is drawn in color or is black and white
Condition	The physical condition of the map (see figure 1)

Once each map was reviewed and its data recorded, it was placed in an assigned slot in a map storage box.

Condition								
Acceptable	Tears	Tattered Edges	Pieces Missing	Water Damage	Cracking	Peeling	Dirty	Other
x	XXX	XXX	X	X				

FIGURE 1 -Metadata Extract from damaged map- All condition fields that apply are marked with an x. Intensity of damage is indicated by the number of x marks entered into the field – four x marks indicates extreme damage requiring immediate repair. A notes field is used to describe conditions either not covered by the existing fields or to provide needed detail.

Outcome:

The objectives of the project were: 1) to create metadata for the entire Historic Mine Map Collection; 2) prepare a searchable electronic database that will enable library staff and users of this collection to efficiently locate materials of interest; and 3) review and record information on the condition of each map. Each maps’ condition has been reviewed allowing CGS to prioritize which maps require archival preservation. Metadata has been created for the initial maps outlined in the project, though metadata needs editing. CGS has not yet prepared a searchable electronic database for the maps to increase collection visibility and availability. Although we have created a digital archive website (<http://cgsdigitalarchive.conservation.ca.gov/>) where the maps will eventually be made searchable, we have yet to make them searchable for the following reasons:

- 1) CGS has identified another 500 (approx.) maps that need to be identified and put together with the existing collection. We are actively engaged in creating an inventory for these maps. It was due to this project that we were able to find and identify these maps as an extension of the initial project.
- 2) The metadata needs editing to add detail not readily available on the maps such as location (county, coordinates) or the type of map (elevation, cross-section, etc.). This will require a certain level of expertise not readily available for such projects (see reason 3).
- 3) Staff limits and the temporary halting of the student intern program significantly slowed progress.

Future

Once all the maps are indexed, we will scan them at a minimum 600 DPI and save the masters as tiffs. From those masters we will create jpegs (See Figure 2 for scanned map example). These Jpegs and their associated metadata will be uploaded the California Geological Survey Digital Archive where they will be included alongside other map collections. Here they will be available for searching via keyword or advanced searching and sorting by mine name, county, author, publisher and map type. The tiff masters will be stored on a safe server alongside the rest of the CGS digital archive.

CGS is dedicated to finishing the expanded project by the end of 2014.

