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Project Title: Subject inventory, metadata generation and scanning of 200 original field notebooks in collection

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Project Abstract: Project involved digital archiving and creation of a detailed subject inventory of 200 items of a collection of geologic information housed at the Missouri Geological Survey (MGS) in Rolla, Missouri. The collection comprises over 1,500 Missouri Geological Survey field notebooks that date back to 1855 and which are maintained in a climate-controlled, fire-protected vault. The collection is one of a kind, is available only at MGS, and would be impossible to replace should it be lost or destroyed. The project also involved generation of metadata and digital scans for the 200 the field notebooks, a process developed in a previous pilot project.

Project Report

The Missouri Geological Survey (MGS), formerly the Missouri Division of Geology and Land Survey, has long been committed to preserving, protecting and serving its collections of geologic information, including drillcore and cuttings, survey publications and historic unpublished data. The immediate goals specific to this proposal were to 1) scan and digitally archive 200 field notebooks from the MGS field notebook collection and 2) create a detailed subject inventory of the field notebooks to be entered into the National Digital Catalog and into the MGS online Missouri Geology Bibliography.

MGS maintains a repository of field notebooks that date as far back as 1855. These notebooks have been stored in a climate-controlled, fire-protected vault with limited access. Scanning was completed on 200 field notebooks and metadata was generated on the author(s), year(s) of work and content. The notebooks were selected primarily based on age and fragility of the notebook. Several more recent notebooks (1960s to 2000s) were also selected due to demand for their content on current MGS projects. Content categories that noted included stratigraphic units, minerals and lithologies noted, mines and quarries, hydrology, paleontology, structure, karst, measured sections and if the work was for a specific geologic map. A field for notes of oil or gas occurrences was added this year, as was a field for state name as some notebooks contain information from surrounding states. Original stratigraphic unit names were kept when noting stratigraphy and may not match current names, especially in older notebooks. Minerals and rocks included were based on both economic and environmental importance; consequently pyrite, marcasite and other uneconomic minerals with potential deleterious properties were noted. The counties in which investigations were done were also included. This work met established proposed goals.

The field notebooks were scanned as 400 dpi tif files and compiled as pdf documents. Settings were adjusted for varying handwriting styles and weights. Scans were done in RGB to enhance readability of the text. Scanning included the front cover, the inside covers that contained information and any additional papers that were included in the notebook. Pages with no text or other information were not scanned in order to limit overall file size; blank page numbers were noted in the DGLS database. This work also met established goals.

In addition, 10 field notebooks that were previously noted as missing were located and added to the MGS inventory. Also, a further 107 sets of field notes related to recent geologic mapping were added to the inventory. These 117 records have been added to the National Digital Catalog. This work was in addition to MGS established goals for the project.

DGLS is continuing to scan field notebooks and generate metadata in our current NGGDPP grant work and plans to complete another set of 200 notebooks for the current grant.