GEOCHRONOLOGIC DATABASE FOR ALASKA

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Alaska Division of Geological & Geophysical Surveys (DGGS) is developing a geochronologic database for Alaska. The geochronologic database will contain age data and supporting sample information and analysis data for all available radiometric dates of rocks and minerals in Alaska. The objective of this project is to expand the most-current existing compilations of radiometric data and to make this age information widely accessible to private industry, academia, and government users. This project is part of the federally funded Minerals Data and Information Rescue in Alaska (MDIRA) program. The primary objective of the MDIRA program is to ensure that all Alaska minerals data are preserved in a safe and readily accessible format for all potential users. Information on mineral resources is important for management policy decisions in both the public and private sectors. Higher quality data should lead to better economic, legislative, and environmental decisions.

DGGS's existing Oracle relational database structure was used as a starting point for the structure of the geochronologic database. Additional fields were added after consulting laboratory analysts and other geologists with a vested interested in using the database. The database will include all available U-Pb, K-Ar, $^{40}Ar/^{39}Ar$, and Rb-Sr data for Alaska. Previous compilations by Wilson and others (1990) and U.S. Geological Survey (1999) provided the initial source of age data for the database. Additional radiometric dates are being compiled from both published and unpublished sources. In addition to updating the existing compilations, this database project is adding essential basic supporting information that is currently not easily accessible. This information includes items such as raw analytical data, standards, constants used in calculations, analytical laboratory, analyst, sample preparation and processing steps, sampling agency and geologist, and sample context and descriptions where the data are available. GeoScienceWorld and a dataset currently under construction at DGGS, the *Bedrock and Surficial Geologic Map Index*, are being used to search for additional sources of data.

This geochronologic database will provide a centralized, up-to-date, digital source of radiometric ages. Addition of the basic supporting data, where possible, will allow the geoscience community to critically evaluate the validity of these ages and to make their own interpretations. To date, over 4,200 age records have been entered into the database. The final stage of the geochronology project is to make this database accessible via DGGS's web site and through a link on the MDIRA website (http://akgeology.info). A release of the geochronologic database is scheduled for June 2007. The completed database will reside in DGGS's Oracle database, which will serve as a repository for future radiometric data.

Wilson, F.H., Shew, Nora, and Dubois, G.D., 1990, Map and table showing isotopic age data in Alaska, *in* Plafker, George, and Berg, H.C., eds., The geology of Alaska; The geology of North America: Boulder, CO, Geological Society of America, v. G-1.

Plafker, G. and Berg, H.C., eds., Geology of North America, The Geology of Alaska, Vol. G-1, Plate 8.

U.S. Geological Survey, 1999, Alaska Radiometric Ages, http://mrdata.usgs.gov/.