A PARTIAL COMPILATION AND DATABASE OF U-Pb GEOCHRONOLOGIC DATA AND SAMPLE LOCATIONS IN ARIZONA AND SOUTHEASTERN-MOST CALIFORNIA

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Geologic map of Arizona with U-Pb sample locations
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Introduction

The Arizona Geological Survey has been conducting field investigations in Arizona as part of the joint Federal-State STATEMAP program (a component of the National Geologic Mapping Act of 1992). During the course of geologic investigations many samples were collected for U-Pb geochronologic analysis as part of field-mapping studies. These samples were analyzed by the Arizona LaserChron Center at the University of Arizona (with support from NSF grant EAR 1338583). Numerous U-Pb analyses of Arizona rocks have also been produced by other laboratories over the past ~25 years. The partial compilation of data included with this publication (Fig. 1) is intended for use by those engaged in geologic investigations. Special care was taken in this report to determine exact sample locations and present both latitude-longitude and UTM coordinates for samples. Samples without accurate sample locations are not included in this database. Much of the analytical data has not been completely evaluated, and statistical techniques for analysis are still being developed. Analytical data are not reported for many samples - these were added to this database simply so that sample locations would be accurately recorded.
Figure 1. Geologic map of Arizona showing locations of samples in this database. Red plus symbol – dated igneous rock sample; red dot symbol – analyzed detrital zircon sample; blue triangles – undated sample in storage at the Arizona Geological Survey. Base map from Richard et al. (2000, AZGS map 35). Map units: Xg = Proterozoic granitoid; Xm = Proterozoic metamorphic rocks; P = Paleozoic sedimentary rocks; Trm = Moenkopi Formation; Jgc = Glen Canyon Group; Tv = Tertiary volcanic rocks; Tsy = upper Tertiary sedimentary rocks; QTb = Quaternary basalt; Q = Quaternary undivided.