

2004 SCEC Annual Report  
Proposal #04184

Improving AMS C-14 based Paleoseismic Chronologies and OSL/Cosmogenic-based  
Slip Rates in Southern California: Integrating Field and Laboratory Tasks

Period: 1 February 2004 to 31 Jan 2005

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Proposal Category: Data Gathering and Products.

Disciplinary Activity: Earthquake Geology

Start Date: February 1, 2004

Our project primarily provides infrastructure support for chronological control of paleoseismic and slip rate studies associated with SCEC field studies funded for 2004. Our proposal requested support for Gordon Seitz (SDSU), for costs of AMS measurements performed by Michael Kashgarian and Robert Finkel (LLNL), and for costs of OSL measurements performed by Lewis Owen (UCR-now at Univ. of Cincinnati).

## **AMS ANALYSES**

To date we have analyzed approximately 60 AMS  $^{14}\text{C}$  dates and we are expecting an additional 60 samples to be submitted before the end of calendar 2004 with analyses to be completed by January 31, 2005. No cosmogenic analyses were funded for SCEC 2004. The SCEC 2004 investigators/projects who have submitted samples as of November 2004 for  $^{14}\text{C}$  dating are listed below:

Tom Rockwell, SDSU: Hog Lake, Lenwood  
Gordon Seitz, SDSU: Hog Lake, Salt Creek, Elsinore  
Ana Cadena, CWU: Twentynine Palms  
Kate Scharer/Ray Weldon, UO: Wrightwood, Pallet Creek  
James Dolan, USC: Cucamonga

## **OSL ANALYSES**

So far we have completed 8 OSL dates for Ana Cadena of Central Washington University for paleoseismic investigations on the Pinto Mountain fault at the Oasis of Mara, Mojave Desert, California. We plan to collect 8 OSL and ~10 cosmogenic samples on December 2-3 on the San Andreas Fault near San Bernardino for slip rate studies with Sally McGill (California State University San Bernardino) and Ray Weldon (university of Oregon). These will be completed by January 31, 2005.