Geology 875 Field Trip

Spring break at the Rio Grande rift

by Jean Bahr and Laurel Goodwin

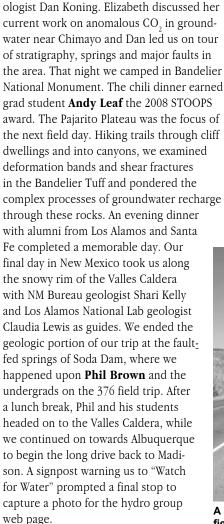
At the start of spring break we set off in two vans with thirteen graduate students for a field trip to New Mexico. This trip was the culmination of seven weeks of reading, lively discussions, and excellent baked goods in a seminar on the structure and hydrogeology of the Rio Grande rift. After two days of driving, we reached Socorro and the comfortable guesthouse at NM Tech. The next morning we visited a research site along the modern Rio Grande where NM Tech hydrologist Rob Bowman and his group are studying groundwater-surface water interactions. We then explored axial river deposits of the ancestral Rio Grande with NM Tech sedimentologist Peter Mozley, paying particular attention to the fascinating concretions (including one in the shape of a large W) that record directions of paleo-groundwater flow. The next morning we drove north to the Albuquerque Basin to learn more about the stratigraphy and hydrostratigraphy of the Santa Fe Group sediments and for a close-up examination of the cemented and mixed zones of the Sand Hill Fault. Our guides for the day included NM Bureau of Geology and Mineral Resources geologists Sean Connell and Geoff Rawling. A late afternoon tour of a new water diversion facility along the river to supply Albuquerque (arranged by alumnus Erik Webb, a hydrologist with



Seann McClure with the "W" concretion.

Sandia National Lab) was followed by a delightful dinner with Geobadger alumni from the Albuquerque area at a local cafe.

After a night camping in a park near the Rio Grande, we made our way north to the Espanola Basin. There we were joined by alumna Elizabeth **Keating** (a hydrologist at Los Alamos National Lab) as well as by NM Bureau ge-





In the valley of the ancestral Rio Grande. (Jean Bahr)

Reflecting on the trip in a wrap-up session after the break, students and faculty participants cited a number of highlights. In addition to the chance to examine, in person, the features described in our seminar readings, we appreciated the opportunity to compare observations and interpretations among structural geologists, hydrogeologists and sedimentary geologists. Dinner conversations with alumni, who have followed a number of career paths and had many adventures along the way, were an added bonus. We thank all the alumni and friends of the department who made this trip possible!



A sign of good things to come for hydros on a field trip. (Jean Bahr)