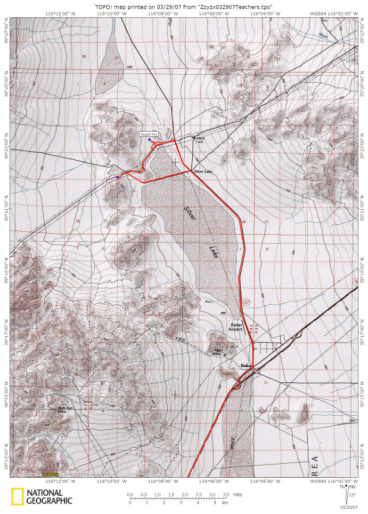
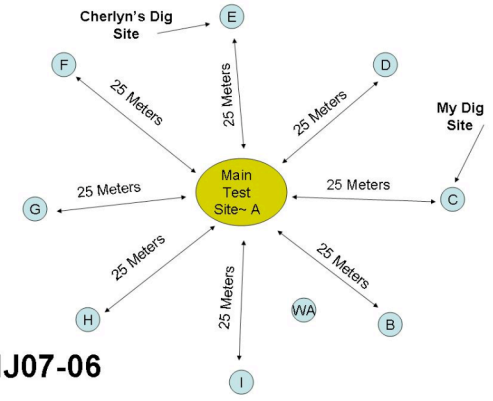
Robin Salonich and Christy Garvin's Blog
March 29, 2007



Zzyzx, CA~ Today's field experience consisted of soil sampling on the Silver Lake dry lake bed with Linda Powers. We did an initial site survey and deemed it not dry enough. Our second site proved to be worthwhile in going forward with the survey. Heather, a graduate student working with Dr. Powers, explained how to collect sterile samples and label them appropriately for their current research. The samples were to be labeled MJ07-06(then lettered based on site). The initial MJ is for Mojave, the 07 is for 2007 and the -06 was because it was the sixth site that had been surveyed in Mojave since their arrival.

We took a total of 13 samples from the entire site. The survey included a main site with samples at the crust layer, six inches, one foot and two feet. At that time, based on readings from the Mahana, we took nine additional samples that also included one wash area.

The Mahana is an instrument that uses light to measure biotic activity (remnants leftover from respiration). It did not determine the actual form of the biotic activity just whether it is there or not.



MJ07-06

There has been an abundance of field, geologic and lab experiences to choose from and I have tried to a little of everything to get a true Mojave Scientific sampling. My teammate, Christy Garvin experienced something different today. She went with the balloon/caving team. Here is what she experienced.

Today was one of the most exciting days in the field; I awoke at 4:00AM to joint the balloon/caving team at the Pisgah lava flow. Once we arrived we climbed to the top of a large cinder cone and used a thermal camera to take pictures of the landscape. This method allowed us to

locate the caves because the air in the caves was warmer than the temperature of the lave flow in which the caves were found (it was still dark and the sun had not yet had the opportunity to warm the rocks.) After we took several photos from the top of the cinder cone, we launched a hot air balloon and repeated the process. Researcher plans to use hot air balloons to continue research in other areas of the desert. Once a cave was located on the camera, a ground team would travel across the lava flow to visually confirm the find; in this was, six caves were confirmed.

After all of the thermal photography was completed, Jut Wynne (cave scientist) led several of us into the lava tube caves to retrieve sensors that had been set up earlier in the week. These sensors collected temperature and humidity data for some of the research Jut is conducting. The time in the lava tube caves was quite an adventure. We wore hard hats with caving lights attached and we crawled flat on our stomachs to squeeze through tights spots in the cave. In one of the caves, we saw a small bat in a state of tupor, which is a very light type of hibernation. We also learned a great deal about how the lava tubes were formed, why they might be a great place to look for life on Mars, and how they could possibly be used as human habitats on the red planet. We left the caves grubby, covered with dirt, and pretty smelly, but it was a lot of fun and definitely worth being a little bit dirty.