

Mass wasting lab essay

[Literature](#), [Russian Literature](#)



Paper towels Cardboard trays Clay soil sample Sand sample Gravel sample Potting soil sample Home soil sample 100 ml beaker 3 cardboard trays 5 plastic cups Protractor Masking tape (labels) Procedure The first thing I did was gather all of my required materials, which are listed above. I then began to pour my samples one at a time into the 100 ml beaker and then poured the 100 ml of each sample into its labeled cup.

Make sure to remove all of the previous sample from the beaker before adding a new one. The next step was to set up my three cardboard trays which are wrapped in plastic wrap. I put two trays flat on the table and the third one upside down on top of the other two trays forming a little bridge. I then slowly started to pour my first sample onto the center of the top tray. Once all of the sample is on the tray I observed the shape of the pile and recorded it into my table. Then measured the angle of the pile with my protractor. After getting my angle recorded on my table collected the sample and returned it to its proper cup. I then repeated this sequence for every sample.

Then next step was to again take your first sample and slowly pour it onto the center of the top tray. Once the entire sample is on the tray pick a side and slowly start to tilt the top tray. Once I noticed movement in the sample I stopped held the tray and used my protractor to measure the angle of the slanted tray. I also recorded what movement I saw at that particular degree of tilt. After recording I tilted the tray some more until the samples moved some more. Again I stopped recorded the angle of the tray and recorded what I saw. I then tilted the tray until the entire sample slid off of the edge.

Again I recorded the angle at which this occurred and recorded all of my data on table 1. Repeat these steps for every sample. The third step was to saturate each sample with tap water. Once soaked the samples I covered to opening of the cup with my hand and poured out all the excess water.

I then slowly poured my first sample on the top tray but this time not in the middle more like a third of the way from the edge. And again I slowly started to tilt the tray upwards. Once I saw movement I stopped measured the angle of the tray and recorded what I observed. I then began to lift the tray again and once saw the saturated sample move again measured the angle of the tray and recorded what I saw. I then tilted the tray until all the sample had slid off the edge of off.

Again measured the angle at which this occurred and recorded what I saw. Repeat these steps for all samples. Table 1 . Dry sediment angle of repose

Sediment name	Average grain size or range of sizes	Average angle of repose of pile (in degrees)	Description of loose pile of sediment	Data (does it stay in a nice cone, or run out into a flat pile?)
Silt		40 degrees	Nice cone	stays together
Sand		30 degrees	Forms nice cone	
Gravel		25 degrees	Pebble	Sloppy pile scattered
Clay		20 degrees	Wide base short cone	Wide base cone

Table 2. Dry sediment mass wasting observations

Angle of tray at initial motion or event (when conditions change)	Description of initial motion	Angle of tray at subsequent motion or event	Description of subsequent motion
19 degrees	Shifted from top	35 degrees	Flattened out
55 degrees	Slid off edge	5 degrees	Sliding out of pile
23 degrees	Started rolling	13 degrees	Shifted from top of cone
55 degrees	Shifted from the top and	17 degrees	

middle 38 degrees Table 3. Saturated sediment mass wasting observations
60 degrees Clumps began to roll 75 degrees Slowly slid towards the edge 90
degrees Slid Off edge 50 degrees Clump started to roll Slid towards the edge
83 degrees Rolled off the top 65 degrees Flattened out, some rolled off 72
degrees Rolled of edge Clumps roll Large clumps roll Off Most slides off some
material stays stuck to tray Large clumps slide 70 degrees Biggest clump
slides off Rest Its and Conch suasion After the first step I noticed that the
sand and potting soil made the best most defined cones while the clay and
home sample had short wide based cones.

The gravel had the worst cone it didn't stay together and spread way out.