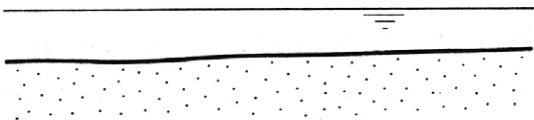


- 1) Write a very brief description of the criteria for when a sediment grain moves in a river.
- 2) How do we use the knowledge in 1 with the attached diagram to learn about sediment transport conditions in rivers recorded in rock?
- 3) Make a diagram of a migrating bed form and the stratigraphy that it creates.

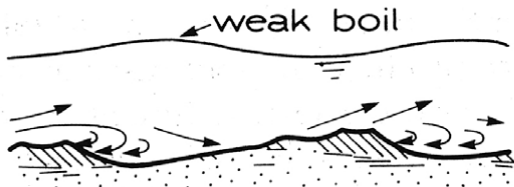
**Due: Wed, Feb 8, 10 AM**



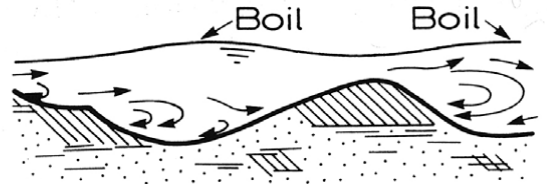
A Lower Plane Bed



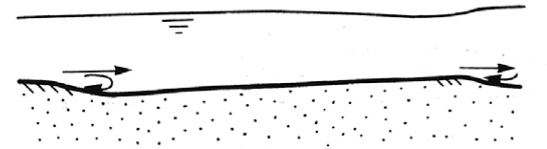
B Typical ripple pattern



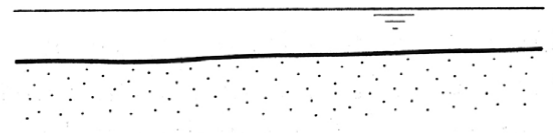
C Dunes with ripples superposed



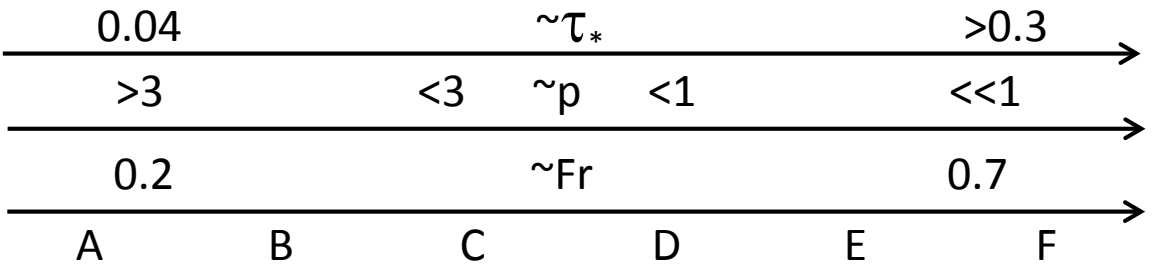
D Dunes



E Washed - out dunes or transition



F Upper Plane Bed



- 1) Write a very brief description of the criteria for when a sediment grain moves in a river.
- 2) How do we use the knowledge in 1 with the attached diagram to learn about sediment transport conditions in rivers recorded in rock?
- 3) Make a diagram of a migrating bed form and the stratigraphy that it creates.

**Due: Wed, Feb 8, 10 AM**

- 1) Write a very brief description of the criteria for when a sediment grain moves in a river.  
A sediment grain in a river will move when the river's applied boundary stress is greater than the grain's critical stress.

$$\tau_b > \tau_c$$

- 2) How do we use the knowledge in 1 with the attached diagram to learn about sediment transport conditions in rivers recorded in rock?

By interpreting a particular bedform from its preserved stratification we can determine the applied stress during the time that a grain was deposited.

- 3) Make a diagram of a migrating bed form and the stratigraphy that it creates.

