

ES486 Video Review Exercise – Sedimentary Facies Overview

Youtube Video Link:

<https://www.youtube.com/watch?v=jW6w7Dfq9qo>

Watch the video, use google and Wikipedia as needed, and answer the following review questions:

1. What is the general goal of “sedimentary facies analysis”.
2. What types of sedimentary environments can be associated with “quartz arenite sandstone”?
3. List five types of modern sedimentary environments associated with deposition.
4. Draw a sketch of marginal marine sedimentary environments.
5. List, describe and sketch three types of river systems that can occur at the Earth’s surface.
6. What is a “paleocurrent indicator” and provide examples from the rock record.
7. Define and discuss the concept of a “sedimentary facies”.
8. Draw a sketch of a parallel bedded sandstone and a low-angle cross stratified sandstone.
9. As sea levels and shorelines change position over time, describe the changes in resulting stratigraphic sequence of facies.
10. True or False: sea level fall will result in erosion and development of incised channels.
11. How are fossils used to interpret environments of deposition over time.
12. Describe the process of “facies modeling” and how it is used to interpret ancient depositional environments.
13. True or False: sandstone can be formed in multiple environments at the Earth’s surface.
14. True or False: mudstone can be formed in multiple environments at the Earth’s surface.
15. After you observe, record and sample; back at the lab, what favorite beverage should you be drinking to make interpretations of ancient environments.
16. Draw sketches to illustrate the difference between transgressive and regressive sedimentary sequences in marginal marine depositional environments.