

Round: 6B

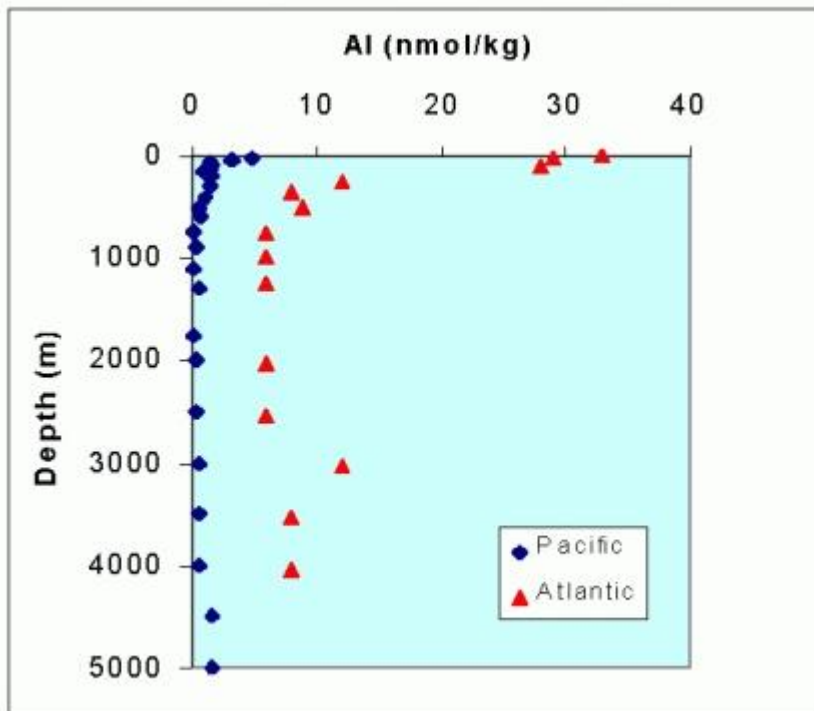
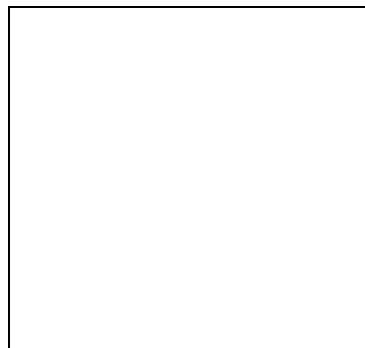
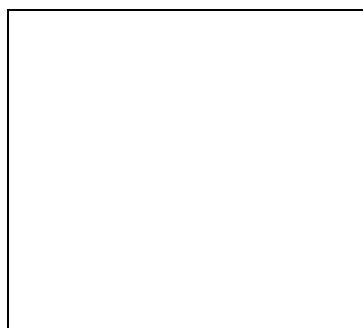


Figure 1: Open ocean vertical profiles of dissolved aluminum in the North Atlantic and North Pacific

5. a. Iron exhibits a nutrient-like vertical profile in the ocean. On the plot below, draw and label the axes for a nutrient-like profile. (5 pts)



- b. Other elements in seawater exhibit a conservative element profile. On the plot below, draw and label the axes for a conservative element profile. (5 pts)



1. What are the two (2) most likely source of aluminum to surface waters? (4 pts)
2. Why are dissolved aluminum concentrations higher in the Atlantic than the Pacific? (2 pts)
3. What process causes aluminum concentrations to decrease in the upper 1000 meters of the water? (2 pts)
4. What is the most likely explanation for the anomalously high data point at 3000 m in the Atlantic? (2 pts)