

Name: \_\_\_\_\_  
Date: \_\_\_\_\_ Period: \_\_\_\_\_

### Lab: Mapping Deep Sea Features

#### Background Questions

1. Name a major constraint to exploration of deepwater regions around the Northwestern Hawaiian Islands.
2. What is the Kilo Moana?
3. What is multi-beam swath bathymetry?
4. What is the accuracy of this sonar method?
5. How is the composition of the sea floor determined?
6. What may this data be used for?

#### Map Questions

7. How is a bathymetric map different from the ocean floor profile you created earlier in the course?
8. What is a benefit of this map over the ocean profile?
9. What is a benefit of the ocean profile over the bathymetric map?
8. This type of map is called a false-color map. Why do you think that is so?
9. Identify areas of steep terrain on the map (row/column coordinates).
10. Identify areas of flat terrain on the map (row/column coordinates).
11. If you were a research diver looking for new species, where would you look and why?

Website Questions: Visit the website: <https://volcanoes.usgs.gov/volcanoes/loihi/>

12. What is Loihi? Describe its general characteristics.
13. What was the cause of Pele's Pit?
14. How long will it take for Loihi to breach sea level?
15. Compare and contrast your map to the map online.