

HAWAII UNDERSEA RESEARCH LABORATORY  
QUICK LOOK REPORT MISSION NO.P5-146

## MISSION STATUS

Location:               Loihi Seamount  
Mission Date:           6 April 1990  
Maximum Depth:         1820 meters  
Project Title:          Petrology of Loihi Lavas  
Project Leader:         Mike Garcia  
Address:                Geology-Geophysics Department  
                          University of Hawaii  
                          Honolulu, HI. 96822  
  
Phone:                  (808) 948-6641  
Observers:              John Mahoney, Mike Garcia  
Address:                Same as above

Scientific Data Acquired : Prepare an abstract outlining your objectives, techniques, findings, etc.

The purpose of this dive was to sample the distal portion of Loihi's north rift. Previous geologic interpretation indicated that this portion of Loihi is the oldest part of the seamount. We noted that the lavas in this area are nearly free of sediment but there are large coral (~1-1.5m) and sponge (1-3m) "trees". There were no such trees on the summit or upper S. rift of Loihi. We also saw more black sand during the early part of the dive in lows between pillows.

Eight samples were collected. They all have glassy rinds which are needed to characterize the magmas of Loihi. We were able to cover a large area of the rift. The dive was successful.

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

The irregular topography of Loihi continues to be a problem in locating ourselves. However, the ship was able to locate us pretty well. The Panasonic camera took on saltwater when the dive started and was removed.

Recommendations for corrective action or improvement:

None

In your opinion, did the mission essentially achieve its purpose? Compare actual work accomplished with the work that was expected to be accomplished.

The mission was successful in having covered a large part of the rift and collected 8 samples.

List specimens or samples collected on the mission.

8 glassy lava samples were collected.

## DATA RELEASE

Data may be retained by the project leader for up to 2 years after the mission date with the following exception. NOAA may request to use photos for publication or publicity purposes at any time.

Fill in the appropriate statement below and sign this form.

I hereby release the data archived by HURL for public consumption following mission P5-146  
(project title) held on April 6, 1990 (date) in the following way:

- a. CTD data by None taken (date)
- b. voice transcripts, video, and still camera film  
by April 1992 (date)
- c. other N/A (date)
- d. I will give my written consent to individuals wishing to use these data prior to the above dates depending on the nature of the request(s).

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Project Leader