

HAWAII UNDERSEA RESEARCH LABORATORY  
QUICK LOOK REPORT MISSION NO.P5-147

## MISSION STATUS

Location: Loihi Seamount, north rift zone, middle part  
Mission Date: 8 April 1990  
Maximum Depth: 1540 meters  
Project Title: Petrology of Loihi Lavas  
Project Leader: Mike Garcia  
Address: Hawaii Institute of Geophysics  
University of Hawaii  
2525 Correa Road  
Honolulu, Hawaii 96822  
Phone: 948-6641  
Observers: John Mahoney, B. Jorgenson  
Address: Same as above

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

This dive was aimed at collecting in-situ rock samples from the middle part of the north rift zone of Loihi. Much of our time was spent trying to locate ourselves on the bottom, as the bottom in the ~1400 m. depth range did not agree with our map, which was based on Seabeam surveying. However, we did collect 6 samples from well-separated outcrops between 1500 m. and 1415 m. All are quite fresh; several have excellent glassy rinds.

At about 750 m. below the sea surface, in the water column, we encountered an unusual ~3 m-long translucent animal which moved (slowly) in an undulatory manner. Front 1/4 was ~clear, back(?) 3/4 had pinkish internal structure which appeared to execute most of the motion.

## MISSION EVALUATION:

Limitations, failures, or operational problems noted:

The principal problem was locating our position on the bottom, due mainly to inaccuracy in the map. The mechanical manipulator arm is too short and limited in its motion.

Recommendations for corrective action or improvement:

Improve manipulator arm (which I understand is planned).

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

Yes, in that we collected several good samples. However, we had hoped for several more, as well as for greater depth range coverage.

List specimens or samples collected on the mission.

6 fragments of pillow lavas

## 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 Petrology of Loihi Lavas  
(project title) held on 8 April 1990 (date) in the following way:

- a. CTD data by N/A (date)
- b. voice transcripts, video, and still camera film  
by April 1992 (date)
- c. other None (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