

HAWAII UNDERSEA RESEARCH LABORATORY
QUICK LOOK REPORT MISSION NO. P5-315

MISSION STATUS

Location: Loihi, South Rift Zone

Mission Date: October 8, 1996

Maximum Depth: 1282 m.

Project Title: Chemical and Heat Fluxes from Loihi

Principal Investigator: Frank Sansone

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Observer 1: N.C. Becker

Observer 2:

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Address:

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

The primary objective of this dive was to locate a new or reactivated hydrothermal vent site on the northern end of the southern rift zone at Loihi Seamount. This was done by driving the submersible in a search pattern east of the rift at 50 m contour intervals. A new vent site was identified and sampled for vent fluids and bacterial mats. In addition, sediment scoop samples were taken of an extensive deposit of glass sand during the survey.

MISSION EVALUATION:

Limitations, failures, or operational problems noted:

All equipment worked as intended, even the sediment scoops which on previous dives had closed before samples could be retrieved.

Recommendations for corrective action or improvement:

One possible improvement would be to have lasers mounted with the video camera so there would always be a scale in the video record. Time could also be saved with an in-hull navigation system.

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 accomplished all intended goals; a new hydrothermal vent site was identified and sampled by all the equipment taken on the dive. In addition, sediment samples were collected of the new hydrothermal deposit.

List specimens or samples collected on the mission.

3 sediment scoops of glass sand
3 major samples of vent fluid
1 "La Bomba" gas-tight sample (for G. McMurtry) of vent fluid
8 suction samples of bacterial mats
1 Niskin sample of vent fluids
temperature readings with thernoster.

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

Chemical and Heat Fluxes from Loihi (project title)

held on 10-8-96 (date) in the following way:

- a. CTD data by 10-8-98 (date)
- b. voice transcripts, video, and still camera film by 10-8-98 (date)
- c. other 10-8-98 (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).

Principal Investigator