HAWAIʻI UNDERSEA RESEARCH LABORATORY
QUICK LOOK REPORT
DIVE: PIV-140

MISSION STATUS

Location: Volcano 1, South Tonga (Tofua) Arc

Latitude: ***Begin*** 21° 09.3624S **Longitude:** ***Begin*** 175°44.520W

Mission Date: June 24, 2005 **Duration:** 20 min (Bottom Time)

Maximum Depth (m): 200 m

Project Title: SITKAP
(Submersible Investigations of the Tonga-Kermadec arc using PISCES)

Principal Investigator: Mark Schmidt, Kiel University

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Observer 1: Mark Schmidt **Observer 2:** None
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Pilot 1: Terry Kerby **Pilot 2:** Max Cremer

Scientific Data Acquired: Video

Objectives:
The goals of the dive were to (1) explore the extension of the mussel field and localize the plume source in the southern and central craters; (2) to sample the vent fluids, gases; (3) to collect rock samples at the northern slope of the southern cone.

Observations, findings, etc: (Also see Appended Dive Log)

Species List:
Observed in video

Midwater:
Mysida

Benthic:
Bacterial mat (dense, filamentous, white)

MISSION EVALUATION:

A. Limitations, failures, or operational problems noted:

No electrical power for hydraulic systems at bottom. Direct ascend after blown fused were replaced.

B. Recommendations for corrective action or improvement:

None. Problem was fixed after the dive (solenoid valve for thruster hydraulic was replaced).

C. In your opinion, did the mission essentially achieve its purpose?

No, due to technical problems.

D. Compare actual work accomplished with the work that was expected to be accomplished.

E. List specimens or samples collected on the mission. (See Sample List Below):

Dive PIV-140

Sample Number	Time (L)	Latitude Min/decM 21degS	Longitude Min/decM 175degW	Depth(m)	Comments

No samples were recovered