**PISCES IV DIVE REPORT**

Pilot: Terry Kerby Dive #: PIV-142 Date: June 25, 2005

Observer 1: Steve Price

Affiliation: HURL Subops

Observer 2: Rennie Vaiomo'Unga

Affiliation: Tongan Observer for Cruise.

Purpose: (Research) Training Test

Other:

Special Equipment:

Cameras: Sony- ROS

Manipulators: Orion, HYCO

Samplers/Sensors: Bio Box, Rock box

Gas tights, majors, sediment scoops

Support Vessel: R/V Kaimikai-O-Kanaloa

Captain: Ross Barnes

Dive Location: Volcano V-1

Latitude: 21°09.093's

Longitude: 175°43.272'W

Time of Dive: 0801

Time of Surface: 1651

Time Submerged: 8:50

Time Thru Last Dive: 1025:35

Total Time to Dive: 1034:25

Dive Depth: 438m

Water Depth: 438m

Water Temperature: 12.2°c @ 438m

Visibility:

Dive Results/Remarks: Dive to explore East ridge and search cone area for source of white cloud. 0833 438m Land on a low angle sandy bottom. 0846 Move upslope to the West. 0917 Locate a lone block of pumice at 383m. Continue moving upslope to the west over a sandy bottom. 1000 Locate exposed bedding layers with a reddish iron oxide layer. 1041 At wp#3 @ 165m. Move on to the west to wp#4. 1054 At wp#4 in 131m. 1001 Dropping downslope to the SW. 156m Enter milky cloud. Drop in visibility to 2m. 1119 203m in depression between ridge and cone. White deposits and some mussels. Move to the southeast side of the basin into an area of thick mussel beds, hydrothermal vents and sulfur deposits. 1157 At marker #41 at 200m. Collect sulfur deposits. Explore ridge to the NE of #41. Locate a vent in the midst of the mussel bed. Temp. 152°c Take major and gastight samples. 1342 199m moved to the bubbling vent site at marker #43. Take gastight & major samples. 1414 Move NW in search of cloud source. 1425 189m Move into a dense cloud. 1432 Move upslope to the NW. Search 2 depressions and move back to the mussel bed along the flanks of the cone. Do not locate a source for the cloud, unless the bubbling vents are the source. 1633 199m Collect scoop gas sample. Move up cone. 1629 143m leave the bottom.

~~Equipment Deficiencies~~:

Pilot's Signature: Terry Kerby Date: 7/22/05

Operations Director: T. Kerby Date: 7/22/05