

# Searching for Hydrothermal Vents in the Samoan Archipelago

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This takes place in the Samoan Islands, located in the South Pacific Ocean. I have been working on finding this underwater vent for 8 months, and it has involved so much of my time and resources. Scientists from Hawaii and I have been analyzing the data that we have found from the sensors I placed at the Aunu'u Pacioos buoy. I first found out about this project by monitoring the temperature reading that the buoy was sending to its website. I found that it was showing an influx in temperature spikes over a period of a couple hours. So I decided to place sensors at 70ft, 50ft, 20ft, and 5ft. This would allow for us to see if the temperature was just surface water flowing through, or actual plumes of volcanic heat coming from the bottom. We also measured the amount of salinity and Ph. levels around the buoy. This would tell us if there was any correlation between the heat plumes and spikes in salinity levels. Overall, this project is still ongoing and will take many more months of research to fully determine if these anomalies in the surface temperature are really coming from a Hydrothermal vent.

## Awards Won:

Geological Society of America &

American Geosciences Institute: Third Award of \$500