There are three fixed laboratories located onboard the R/V Lake Guardian:

The chemistry lab (main deck -port side) is approximately 360 ft², is equipped with fume hoods, canopy hood, deionized water, hot and cold running water, eye wash station, a refrigerator, HEPA air filtration, LAN connections, phone and bench space. It is used for testing and filtering particulates and preparing sample containers for further analysis.

The microbiology lab (main deck - starboard side) is approximately 208 ft² and is equipped with fume hoods, deionized water, refrigerator, freezer, eye wash station, HEPA air filtration, LAN and phone connections and bench space. It is generally used for chlorophyll a and other biological assessments of phytoplankton, zooplankton and benthos.

The Multipurpose Lab (Wet Lab - main deck-port side aft part of deckhouse) is approximately 300 ft², is equipped with fume hoods, deionized water, eye wash station and LAN connections. It's used for pH, turbidity, conductivity, and dissolved oxygen measurements.

The portable (container 8ft x 20ft) lab is mounted on the hotel deck which is accessed from the passageway connected to the wet lab. This lab is used for organic extraction and is equipped with fume hoods, 110/208VAC, cold water, general waste and contaminated waste water lines.

There is a 410 cubic feet walk-in refrigerator and a 308 cubic feet walk-in freezer used for sample storage.