Cast 2

Station 1

January 6, 22:32

-72 11, -159 01

4298 m depth

This station is the first science station of the cruise. It was chosen to be northeast of the band of sea ice that is across our passage to Ross Shelf.

There was a 25 m surface mixed layer with very little fluorescence. A clear winter water layer of about 50 m thickness extended below that. The rest of the water column was warmer with a clear CDW layer.

The mixed layer was 25 m thick with a temperature of -0.5 and a salinity of 33.9. There was very little fluorescence (less than 1 mg/m3).

A cold water layer extends between 45 and 100 m. Minimum temperature is -1.6 at a depth of 70 m with a salinity of 34.1. The upper and lower part of the winter water layer have warmed due to vertical mixing.

The rest of the water column is warm with a Tmax at 280 m with a temperature of 1.7 and a salinity of 34.69. This layer is clearly upper CDW although it is slightly cooler than the core (1.8C). 

