Readme for CTD Data obtained onboard the R/V Mirai

November 30, 2018

<< System Information >>

< Underwater unit >

SBE9plus (S/N 09P21746-0575, Sea-Bird Electronics, Inc.)
Pressure sensor:
Digiquartz pressure sensor (S/N 0575_79492)
Calibrated Date: 25 May 2017
Temperature sensors:
Primary: SBE03-04/F (S/N 03P2730, Sea-Bird Electronics, Inc.)
Calibrated Date: 26 Aug. 2017
Secondary: SBE03-04/F (S/N 03P5329, Sea-Bird Electronics, Inc.)
Calibrated Date: 30 Aug. 2017
Conductivity sensors:
Primary: SBE04C (S/N 041172, Sea-Bird Electronics, Inc.)
Calibrated Date: 08 Sept. 2017
Secondary: SBE04C (S/N 043889, Sea-Bird Electronics, Inc.)
Calibrated Date: 01 Sept. 2017
Dissolved Oxygen sensor:
Primary: SBE43 (S/N 430205, Sea-Bird Electronics, Inc.)
Calibrated Date: 26 Aug. 2017
Secondary: SBE43 (S/N 432036, Sea-Bird Electronics, Inc.)
Calibrated Date: 06 Aug. 2016
Fluorescence:
Chlorophyll Fluorometer (S/N 3618, Seapoint Sensors, Inc.)
Gain setting: 10X, 0-15 µg/l
Calibrated Date: None
Offset: 0.000
Photosynthetically Active Radiation:
PAR sensor (S/N 1025, Satlantic Inc.)
Calibrated Date: 06 July 2015
Altimeter:
Benthos PSA-916T (S/N 1100, Teledyne Benthos, Inc.)
Carousel water sampler:
SBE32 (S/N 3221746-0278, Sea-Bird Electronics, Inc.)
Submersible Pump:
Primary: SBE5T (S/N 052627, Sea-Bird Electronics, Inc.)
Secondary: SBE5T (S/N 050984, Sea-Bird Electronics, Inc.)

< Deck unit >

SBE11plus (S/N 11P7030-0272, Sea-Bird Electronics, Inc.)

<< Quality Control >>

Corrections were applied based on the sampled water analyses for salinity, dissolved oxygen, and fluorescence.
Details can be found in the MR17-08 Cruise Report (Sections 5.13 - 5.15, and 5.17).

QC information is flagged as [1] Not calibrated, [2] Acceptable measurement, and [3] Bad measurement.

<< Data Format >>

“*.wct” file contains the final products of CTD profiles as ASCII after applying corrections based on sampled water analyses.
Parameters stored are;
pressure (dbar), depth (m), temperature (degree-C), salinity, conductivity (S/m), dissolved oxygen (micro mol/kg), dissolved oxygen (voltage), fluorescence (mg/cum), PAR/irradiance, potential temperature (degree-C), and density (kg/m^3).