Sampling notes, Line P cruise, 2020-008, 11 August to 24 August 2020

CTD/Rosettes:

38 files, 0001 to 0086.

0 stand-alone CTD.

36 rosette casts (SI only a test cast)

1 cast needed two files (52/53)

0 file not needed

CTD 0443 used for the whole cruise.

Seasave version 7.26.7.121

Configuration file:

The config file 2020-008START.xmlcon was used for casts 0001 to 0050.

Config file 2020-008START\_newFl\_17AUG2020.xmlcon was used for the rest of the cruise with fluorescence sensor 3950.

Standard procedure:

The rosette was brought to the surface. Pumps were turned ON. The rosette was brought down to 10m and kept there for 30 seconds. Once back at the surface, the data started to be archived, with the rosette at the surface for 30 seconds longer. Then the cast would start.

Problems with CTD:

Cast 0039, P14: we had a “Scan length error” during the downcast at ~2100 dbar. Somehow it closed a bottle, so all the Niskins are off by one on the upcast.

Casts 0052 – 0053, P18: at around 500 dbar on the downcast the display did some weird things, with some sections of the trace disappearing and the normally-yellow DO trace turning green as the Fluorescence trace. So we stopped the cast, checked file 0052 to make sure the data were ok, rebooted the computer and kept doing the cast with file 0053.

Niskins & Samples at CTD/Rosette casts:

Cast 0001 – SI: all 24 Niskins closed only for testing, no sampling done, no CHE file needed.

Cast 0039 – P14: There was a “Scan length error” during the downcast at ~2100 dbar. Somehow it closed a bottle, so all the Niskins are off by one on the upcast and there’s no 5 m sample. It’s weird though because the .bl file only has 24 bottles, but the .ros file has 25. Salinity values may be needed to solve the mystery.

File names – Headers:

Cast 0009 – P1: wrong depth in the header, is 186, should be 135.

Cast 0020 – P6: wrong station name in heater, is P5, should be P6.

Cast 0037 – P13: wrong depth in the header, is 3500, should be 2875.

Cast 0039 – P14: wrong depth in the header, is 3600, should be 3315.

Cast 0052 – P18: wrong depth in the header, is 3890, should be 3802.

Cast 0069 – P25: wrong depth in the header, is <3000, should be 3890.

Cast 0070 – P35: wrong depth in the header, is >3000, should be 4170.

Casts with no PAR sensor:

0036 – P12 Deep; 0037 – P13; 0039 – P14; 0044 – P16 Deep; 0052/0053 – P18;

0054 – P19; 0060 – P20 Deep; 0064 – P22; 0066 – P23; 0068 – P24; 0078 – P26 Deep – 0086 – P4.

Cast out of order:

None, but: Cast 0039 – P14: We had a “Scan length error” during the downcast at ~2100 dbar. Somehow it closed a bottle, so all the Niskins are off by one on the upcast and there’s no 5 m sample.

Casts with no Niskin closed:

0052 – P18 (see notes problems with CTD).

Loops:

See loops log.

TSG:

We used the SBE-45. All files in SCS format.