Sampling notes, La Perouse cruise, 2020-009, 24 August to 8 Sept 2020

CTD/Rosettes:

137 files, 0001 to 0235.

0 stand-alone CTD.

72 rosette casts

2 casts needed two files (39/40 and 137/138)

1 file not needed (0098).

CTD 0443 used for the whole cruise.

Seasave version 7.26.7.121

Configuration file:

Config file 2020-008START\_newFl\_17AUG2020.xmlcon was used for the whole cruise.

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:

Casts 0039 – 0040, LC11: at 300 dbar on the upcast the computer froze. Niskin 7 was closed just before the ‘freeze’ but it didn’t display on the monitor. Cast 0040 was started at 300 dbar and contains the upcast. See notes below regarding the Niskins.

Cast 0098 – LJ03: the officers wanted the rosette out of the water to correct a big wire angle; cast aborted at 27 dbar. Cast NOT needed. “Good LJ03” is cast 0099.

Cast 0122 – LBP2: something got stuck in the primary conductivity cell, the signal was really bad.

Casts 0137 – 0138, CS02: at ~720 dbar the computer crashed. Niskins 1 to 6 were closed on cast 0137, the rest of the Niskins were closed on cast 0138.

Cast 0168 – SS5: something got stuck in the secondary conductivity cell, the signal was really bad.

Niskins & Samples at CTD/Rosette casts:

Cast 0002 – LB02: Niskin 2 didn’t close.

Cast 0003 – LB03: since Niskin 2 didn’t close on the previous cast, tested Niskin 2 on this cast. Only Niskin 1 is needed.

Cast 0004 – LB04: close Niskin 24 at 75m in case Niskin 2 didn’t close, but it did. Niskin 24 not needed.

Cast 0008 – LB06: close Niskin 24 at 100m in case Niskin 2 didn’t close, but it did. Niskin 24 not needed.

Casts 0039 – 0040, LC11: Niskin 7 was closed on cast 0039, but it didn’t show up on the monitor. When cast 0040 was started, Niskin 1 got “clicked” by mistake (it was already closed), then Niskin 7 got “clicked” again at 300 dbar, but it didn’t do anything. So when the next Niskin got closed (it should have been 8), Niskin 7 got ‘clicked’ yet again at 250 dbar. The problem was only noticed at 125 dbar; so Niskin 12 got skipped so the rest of the Niskins could be closed at the right depth. From the Oxygen values it seems that Niskin 7 was closed at 300 dbar during cast 0039. See the hydro file to see what depth the water came from. We also took some extra salinity samples from Niskins 7 and 8.

Casts 59 and 61 – LD01 and LD02: Niskin 2 did not close.

Cast 0065 – LD04 (called file 0064, see below): Niskin 6 was closed in case Niskin 2 did not fire. Niskin 2 did indeed NOT fire, so sample 188 at 30 dbar came from Niskin 6.

Cast 0067 – LD06: Niskin 9 was closed in case Niskin 2 did not fire. Niskin 2 did indeed NOT fire, so sample 193 at 100 dbar came from Niskin 9.

Cast 0069 – LD08: Niskin 18 was closed in case Niskin 2 did not fire. Niskin 2 did indeed NOT fire, but neither did Niskin 18. So there is no sample 201 from 750 dbar.

Cast 0077 – LD11: two attempts were made to close Niskin 2 at 1500 dbar. Niskin 2 did not close. Niskin 23 also at 1500 dbar was forgotten. So no sample at 1500 for this cast. Sample 234 at 20 dbar comes from Niskin 24.

From cast 78 on, Niskin 2 and Niskin 11 were skipped, even though sometimes they were closed. They were never sampled and therefore not needed in the CHE file.

Casts 0096 – LJ02 and 0099 – LJ04: both have a sample number 284.

Cast 0107 – LJ09: has two sample numbers 292. One has been renamed 9292. Also the rosette logs and labels call for Niskins 1, 3, 4, 5; but the .bl file indicates that Niskins 1, 2, 3, 4 were closed.

Casts 0138 – CS02 and 0144 – CS04: both have a sample number 383.

Cast 0161 – CS09: Niskin 11 fired by mistake, not sampled, not needed.

Cast 0198 – CHP1: Niskin 11 fired just to test (since it didn’t close on cast 0197 at JS). Not needed (and didn’t close anyway).

Cast 0222 – 27: closed Niskin 3 by mistake at 275 m. Use Niskin 24 instead for the 250m sample, sample number 507.

File names – Headers:

Cast 0064 – LD04: files should be called 0065. Event 0064 was the bongo.

Cast 0116 – LBP6: is called LBP7 in the header, was actually station LBP6.

Cast 0177 – NL01: is called NL1 in the header, should be NL01.

Cast 0223 – GEO1: file was called 023 by mistake, all files renamed 0223 by operator.

Casts 0227 and 0228: are missing the “0” (files are called 2020-009-227.\* …).

Casts with no PAR sensor:

None.

Casts out of order:

0004 – LB04; 0008 – LB06; 0040 – LC11; 0065 – LD04; 0067 – LD06; 0069 – LD08; 0077 – LD11; 0222 – 27.

Casts with no Niskin closed:

Many

Loops:

See loops log.

TSG:

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