Ferry Maintenance Report

Vessel: Queen of Alberni

Date: March 27, 2014

Arrival: 12:45PM sailing to Tsawassen. We signed in at terminal supervisor at Duke Point.

Reporter: Akash Sastri/Chris Sundstrom Staff: Chris Sundstrom, Akash Sastri

Reason for Visit

Regular instrument servicing

Observations

- There were no signs of moisture or leaks In the Instrument Box. Tightening of the fittings on the BBFL2 seems to have resolved the trivial leaks noticed last time.
- 2. The AADI optode had very little debris or sediment within the housing.
- The BBFL2 had a minor partial layer of sediment in the housing and minor fouling on the sensing surface.
- 4. The Seabird 45 CT sensor was relatively clean, with only minor sediment within the sensor.
- 5. The sea chest showed no signs of leaks.
- 6. The inline filter (sea strainer) was checked and cleaned and 6-8 small bivalves were removed from the bottom of the strainer.

Actions Taken

- 1. Opened both boxes and observed function. Both were working well, no leaks anywhere.
- 2. Powered down and disassembled instruments in lower assembly.

- 3. Cleaned and checked over instruments in engineering room.
- 4. Ran pre- and post- calibration with standard solutions for CDOM fluorescence and Chl fluorescence. A more detailed report on the calibration procedure and initial results to follow.
- 5. Re-assembled the instruments in the lower box.
- 6. Checked over Sea chest and valves, no leaks apparent.
- 7. Checked and cleaned the sea strainer.
- 8. Turned ON the system.
- No leaks in instrument housing and checked flow output at sea strainer. Flow was good. Visually
 confirmed flow direction at the BBFL2 and confirmed the volume filled with water and began
 draining correctly.
- 10. Signed out at Engineering room.
- 11. Visual inspection of the meteorological station from the lower deck. All instruments appeared to be in good working order. The BC Ferries antenna directly over one instrument noted on the last trip had not been repositioned. On the last trip, (March 14, 2014) BC Ferries representative (2nd officer) on site noted he would try to have this antenna cut down or removed.

Future Actions

- 1. Purchase more appropriate geometry cleaning tools for accessing the internal surfaces of the BBFL2.
- 2. Contact Engineering on Q of A for potential assistance in removal of interfering antenna on 2nd bridge (which seems to be non-functional).

PICTURES

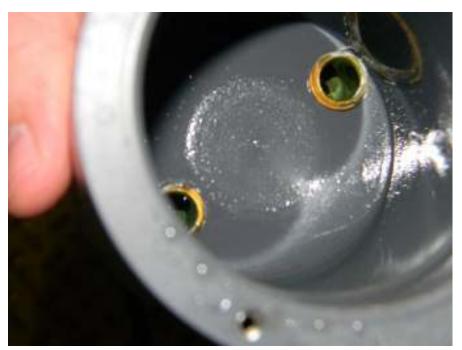


Figure 1. Interior of optode housing before cleaning



Figure 2. Aandera optode: optical window prior to cleaning



Figure 3. Interior of BBFL2 housing before cleaning



Figure 4. Sea-strainer before cleaning (left image) and larger material contents (right image; note bivalves) removed from the base of the strainer.