



Ocean Networks Canada

Ferry Maintenance Report – Queen of Alberni

Date: April 24, 2015

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

Reporter: Chris Sundstrom (Servicing), Akash Sastri (Science Analysis)

Attending Personnel: Chris Sundstrom, Lisa Bethell (ONC-Operations), Akash Sastri (ONC Science)

Reason for Visit

Regular servicing visit.

Observations

1. In the Instrument Box there were signs of moisture due to condensation only.
2. The Sea Chest was dry with no evidence of leaks.
3. The Sea Strainer was dirty with mussels growing in the region between the intake and the strainer (i.e.: blocked from entering the main system).

Actions Taken

1. Opened both boxes and observed function. The pump seemed to be operating normally and all flow seemed nominal.
2. Powered down system.
3. Removed the instruments for normal cleaning procedures.
4. All instruments showed biofilm growth but not to an abnormal level.
5. Tubing was inspected; not signs of blockages or leaks in the new 5/8" intake/discharge lines. No signs of blockages and minimal fouling in the instrument lines.
6. Sea chest was inspected. No signs of leaks.
7. Sea Strainer was inspected and cleaned. Extensive mussel growth (~10-15 mussels) was found inside the strainer between the strainer and the outer glass (i.e.: blocked by the strainer from entering the system). The glass container was cleaned as best as possible and mussels were removed as much as possible.
8. Instruments were re-installed into the system.
9. Pump battery replaced (old battery shows a voltage of 13.3 VDC no-load).
10. System did not restart; cause was determined to be water spilled on the leak sensor during servicing. Leak sensor replaced and the system restarted. All flow is nominal except the CT sensor was slow to fill.
11. UBC Student visits during return voyage and uses external sampling tap to take water samples. Flow is more than adequate.



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12. Signed out at Engineering room.

Future Actions

1. Bring more Desiccant bags
2. Bring AAA batteries for headlamp
3. Bring Sponges for soaking up leaks

Discussion of Test Procedures and Results

The test procedures used are documented in the supplemental report, which also provides preliminary analysis of the data and its consequences.

Pictures:



Figure 1: System upon arrival



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Figure 2: Condensation on outside of tubing and instruments



Figure 3: Biofouling in Optode housing



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Figure 4: Mussels recovered from Sea Strainer



Figure 5: Biofouling of BBFL2 Surface



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Figure 6: Biofouling within BBFL2 housing



Figure 7: Sea Strainer biofouling



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Figure 8: CT sensor biofouling