Ocean Networks Canada

Ferry Maintenance Report – Queen of Oak Bay

Vessel: Queen of Alberni Date: Sept. 7, 2016

Arrival: Signed in at Duke point Terminal 0730. Parked in lane 26

Reporter: William Glatt Staff: Ian Beliveau, William Glatt

Ship's crew:

Reason for Visit

- To determine system failure and make repairs

Observations (important highlighted in red)

Upon arrival system was not functioning properly. The pump was making a high pitched whine. Leak tray was dry

Actions Taken

1. Opened hatch to observe sea strainer. Sea strainer appeared clear.
2. Stopped auto sequence. Visually inspected pump connections.
3. Turned pump back on high and opened drain valve. No flow.
4. Shut down pump and closed valve
5. Using a light, a visual inspection of the pump inlet and outlet hoses was conducted. No obvious blockages.
6. Determined next course of action was to strip down the sea chest
7. The valve was accessed and upon inspection no obvious blockage was found.
8. Further disassembly revealed significant biofouling (see photos). Bio fouling was removed and valve was reconnected.
9. Valve was opened and sea water was allowed to flow through. Low flow was observed. (See videos shared to alfresco)

10. Tested pump out of bucket. No flow observed. Pump voltages were measured
    High = 11.1V Low = 2.7V

11. Valve was disassembled. Revealed substantial biofouling

12. Biofouling was removed, valve and sea chest were reassembled.

13. Outlet valve opened and observed

14. A new pump was installed and a system test was conducted. Minimal flow was observed through TSG. BBFL2 and Optode had zero flow.

    Pump voltages measured High = 10.1 Low = 6.6
    *** these voltages are different from the broken pump***
15. TSG was removed to allow inspection of manifold.

16. Manifold was removed from instrument chest. Pump controller removed. System mothballed.

Future Actions

Conduct testing on removed pump and pump controller

Determine a plan of action to address biofouling and limited pump protection

Return to QoA week of Sept 12 to make repairs

Additional notes

Bring ¼" flat washers and lock washers

Add ¾" wrench to tool box

Order new ½" F-F 90o elbows. (schedule 60)

Pictures

Figure 2 Biofouling on valve inlet

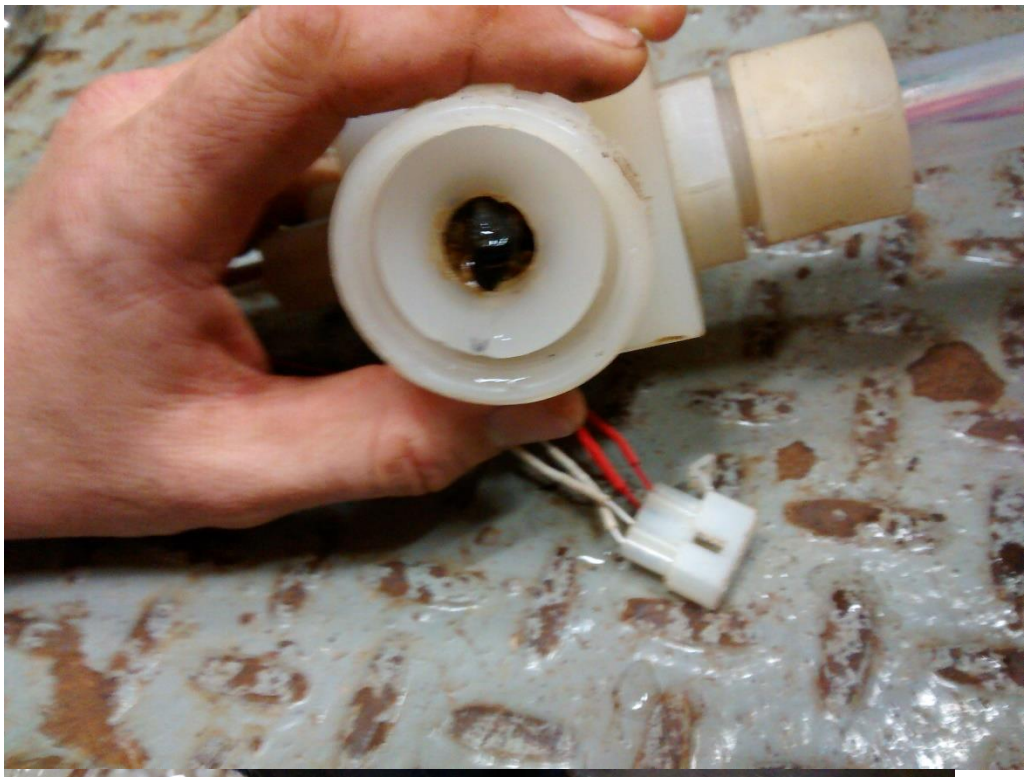

Figure 3 Biofouling on Valve fittings

Figure 4 Biofouling on valve fittings

Figure 5 &6 Cleaned valve fittings

Ocean Networks Canada

Ferry Maintenance Report – Queen of Oak Bay