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### Service Report

SBE Job Number: 33323

Date: 16 September 2003

Customer: US Department of Commerce, NOAA

#### Customer Identified Problem:

1. Calibrate SBE 3 temperature sensors, S/N 031075, 031609, 031652, 031692, and 031701.
2. Calibrate SBE 4 conductivity sensors, S/N 041335, 041346, 041347, and 041374.
3. Calibrate SBE 43 DO sensors, S/N 430140 and 430154.

#### Problems Found:

1. SBE 4 conductivity sensors, S/N 041374.  
The conductivity cell was found to be broken.  
When the unit was disassembled there was corrosion damage found on the  
"O"-Ring sealing surfaces of both the sensor housing and end cap.
2. SBE 43 DO sensor, S/N 430154.  
The sensor was found to have a slow response time.  
Post calibration was not performed.

#### Services Performed:

1. Calibrations performed on SBE 3 temperature sensors, S/N 031075, 031609, 031652, 031692 and 031701.  
Post calibrated the sensors.
2. Calibrations performed on SBE 4 conductivity sensors, S/N 041335, 041346 and 041347  
Post calibrated the sensors.
3. Calibrations and services performed on SBE 4 conductivity sensor, S/N 041374.  
Post calibrated the sensor.  
Replaced the conductivity cell.  
Replaced the sensor housing and end cap.  
Replaced the main piston "O"-Rings.  
Performed hydrostatic pressure test.  
Recalibrated the sensor.  
Performed full diagnostic evaluation.

4. Calibrations and services performed on SBE 43 DO sensor, S/N 430140.  
Post calibrated the sensor.  
Backfilled the pressure compensation bag with saline solution.  
Performed full diagnostic evaluation.
5. Calibrations and services performed on SBE 43 DO sensor, S/N 430154.  
Replaced the lid and membrane assembly.  
Re-backfilled the sensor's electrolyte reservoir.  
Backfilled the pressure compensation bag with saline solution.  
Recalibrated the sensor.  
Performed full diagnostic evaluation.