

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 3854  
CALIBRATION DATE: 26-Oct-12

SBE4 CONDUCTIVITY CALIBRATION DATA  
PSS 1978: C(35,15,0) = 4.2914 Seimens/meter

## GHIJ COEFFICIENTS

g = -1.04185497e+001  
h = 1.58391373e+000  
i = -1.61309395e-003  
j = 2.17652702e-004  
CPcor = -9.5700e-008 (nominal)  
CTcor = 3.2500e-006 (nominal)

## ABCDM COEFFICIENTS

a = 4.00359248e-006  
b = 1.58006797e+000  
c = -1.04116745e+001  
d = -8.43850317e-005  
m = 5.4  
CPcor = -9.5700e-008 (nominal)

| BATH TEMP<br>(ITS-90) | BATH SAL<br>(PSU) | BATH COND<br>(Siemens/m) | INST FREQ<br>(kHz) | INST COND<br>(Siemens/m) | RESIDUAL<br>(Siemens/m) |
|-----------------------|-------------------|--------------------------|--------------------|--------------------------|-------------------------|
| 0.0000                | 0.0000            | 0.00000                  | 2.56690            | 0.00000                  | 0.00000                 |
| -1.0000               | 34.6190           | 2.79016                  | 4.92283            | 2.79019                  | 0.00003                 |
| 1.0000                | 34.6202           | 2.96080                  | 5.03112            | 2.96077                  | -0.00003                |
| 15.0000               | 34.6205           | 4.25013                  | 5.78405            | 4.25010                  | -0.00002                |
| 18.5000               | 34.6199           | 4.59512                  | 5.96933            | 4.59514                  | 0.00002                 |
| 29.0000               | 34.6164           | 5.67325                  | 6.51408            | 5.67327                  | 0.00002                 |
| 32.5000               | 34.6080           | 6.04376                  | 6.69092            | 6.04374                  | -0.00002                |

Conductivity =  $(g + hf^2 + if^3 + jf^4) / 10(1 + \delta t + \epsilon p)$  Siemens/meter

Conductivity =  $(af^m + bf^2 + c + dt) / [10(1 + \epsilon p)]$  Siemens/meter

t = temperature[°C]; p = pressure[decibars];  $\delta$  = CTcor;  $\epsilon$  = CPcor;

Residual = (instrument conductivity - bath conductivity) using g, h, i, j coefficients

Date, Slope Correction

