

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1335  
CALIBRATION DATE: 20-Feb-10

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

## GHIJ COEFFICIENTS

g = -3.97320174e+000  
h = 5.02143660e-001  
i = -5.73952264e-005  
j = 3.07985560e-005  
CPcor = -9.5700e-008 (nominal)  
CTcor = 3.2500e-006 (nominal)

## ABCDM COEFFICIENTS

a = 2.07864759e-005  
b = 5.02017984e-001  
c = -3.97311225e+000  
d = -8.79307838e-005  
m = 4.1  
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                  | 2.81268            | 0.00000                  | 0.00000                 |
| -1.0000               | 34.7437           | 2.79927                  | 7.96678            | 2.79928                  | 0.00001                 |
| 0.9999                | 34.7440           | 2.97036                  | 8.17647            | 2.97036                  | -0.00000                |
| 14.9999               | 34.7444           | 4.26372                  | 9.61272            | 4.26370                  | -0.00002                |
| 18.4999               | 34.7444           | 4.60985                  | 9.96144            | 4.60985                  | -0.00000                |
| 28.9999               | 34.7419           | 5.69149                  | 10.97854           | 5.69154                  | 0.00005                 |
| 32.5000               | 34.7324           | 6.06301                  | 11.30620           | 6.06298                  | -0.00003                |

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

