

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 3657  
CALIBRATION DATE: 14-Oct-14

SBE 4 CONDUCTIVITY CALIBRATION DATA  
PSS 1978: C(35,15,0) = 4.2914 Siemens/meter

## COEFFICIENTS:

g = -9.89889963e+000  
h = 1.40124434e+000  
i = -2.75167822e-003  
j = 2.77546896e-004

CPcor = -9.5700e-008 (nominal)  
CTcor = 3.2500e-006 (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                  | 2.66298            | 0.00000                  | 0.00000                 |
| -1.0000               | 34.6727           | 2.79408                  | 5.20923            | 2.79409                  | 0.00001                 |
| 1.0000                | 34.6735           | 2.96492                  | 5.32550            | 2.96492                  | -0.00000                |
| 15.0001               | 34.6745           | 4.25606                  | 6.13286            | 4.25605                  | -0.00001                |
| 18.5000               | 34.6747           | 4.60161                  | 6.33134            | 4.60160                  | -0.00001                |
| 29.0001               | 34.6731           | 5.68151                  | 6.91456            | 5.68155                  | 0.00004                 |
| 32.5000               | 34.6671           | 6.05291                  | 7.10387            | 6.05288                  | -0.00003                |

f = INST FREQ / 1000.0

Conductivity =  $(g + h * f^2 + i * f^3 + j * f^4) / (1 + \delta * t + \epsilon * p)$  Siemens / meter

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

Residual = instrument conductivity - bath conductivity

