

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0822  
CALIBRATION DATE: 17-Apr-12

SBE 37 CONDUCTIVITY CALIBRATION DATA  
PSS 1978: C(35,15,0) = 4.2914 Siemens/meter

## COEFFICIENTS:

g = -1.035657e+000  
h = 1.593715e-001  
i = -2.621330e-004  
j = 4.931459e-005

CPcor = -9.5700e-008  
CTcor = 3.2500e-006  
WBOTC = -2.8737e-005

| BATH TEMP<br>(ITS-90) | BATH SAL<br>(PSU) | BATH COND<br>(Siemens/m) | INST FREQ<br>(Hz) | INST COND<br>(Siemens/m) | RESIDUAL<br>(Siemens/m) |
|-----------------------|-------------------|--------------------------|-------------------|--------------------------|-------------------------|
| 22.0000               | 0.0000            | 0.00000                  | 2552.78           | 0.00000                  | 0.00000                 |
| 1.0000                | 34.9254           | 2.98440                  | 5023.64           | 2.98444                  | 0.00004                 |
| 4.5000                | 34.9048           | 3.29225                  | 5211.93           | 3.29221                  | -0.00004                |
| 15.0000               | 34.8606           | 4.27647                  | 5772.36           | 4.27644                  | -0.00003                |
| 18.5000               | 34.8510           | 4.62247                  | 5956.64           | 4.62247                  | -0.00001                |
| 24.0000               | 34.8405           | 5.18183                  | 6242.80           | 5.18186                  | 0.00003                 |
| 29.0000               | 34.8344           | 5.70495                  | 6498.74           | 5.70499                  | 0.00004                 |
| 32.5000               | 34.8308           | 6.07823                  | 6675.17           | 6.07819                  | -0.00004                |

$f = \text{INST FREQ} * \sqrt{1.0 + \text{WBOTC} * t} / 1000.0$

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

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

Residual = instrument conductivity - bath conductivity

