

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0047
CALIBRATION DATE: 17-Dec-11

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

COEFFICIENTS:

| | |
|--------------------|----------------------|
| g = -1.010691e+000 | CPcor = -9.5700e-008 |
| h = 1.473472e-001 | CTcor = 3.2500e-006 |
| i = -1.417661e-004 | WBOTC = 2.0353e-006 |
| j = 3.387959e-005 | |

| BATH TEMP (ITS-90) | BATH SAL (PSU) | BATH COND (Siemens/m) | INST FREQ (Hz) | INST COND (Siemens/m) | RESIDUAL (Siemens/m) |
|--------------------|----------------|-----------------------|----------------|-----------------------|----------------------|
| 22.0000 | 0.0000 | 0.00000 | 2620.19 | 0.00000 | 0.00000 |
| 1.0000 | 34.9562 | 2.98678 | 5205.43 | 2.98678 | -0.00000 |
| 4.5000 | 34.9356 | 3.29487 | 5401.52 | 3.29487 | 0.00000 |
| 15.0000 | 34.8915 | 4.27986 | 5984.73 | 4.27986 | 0.00000 |
| 18.5000 | 34.8816 | 4.62609 | 6176.38 | 4.62610 | 0.00001 |
| 24.0000 | 34.8704 | 5.18578 | 6473.90 | 5.18578 | -0.00000 |
| 29.0000 | 34.8630 | 5.70910 | 6739.90 | 5.70910 | -0.00001 |
| 32.5000 | 34.8567 | 6.08224 | 6923.13 | 6.08224 | 0.00001 |

$f = \text{INST FREQ} * \text{sqrt}(1.0 + \text{WBOTC} * t) / 1000.0$
 $\text{Conductivity} = (g + hf^2 + if^3 + jf^4) / (1 + \delta t + \epsilon p)$ Siemens/meter
 t = temperature[°C]; p = pressure[decibars]; $\delta = \text{CTcor}$; $\epsilon = \text{CPcor}$;

Residual = instrument conductivity - bath conductivity

