

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0039
CALIBRATION DATE: 12-Dec-07

90340 CONDUCTIVITY CALIBRATION DATA
PSS 1978: C(35,15,0) = 4.2914 Siemens/meter

COEFFICIENTS:

| | |
|--------------------|----------------------|
| g = -1.044170e+000 | CPcor = -9.5700e-008 |
| h = 1.513069e-001 | CTcor = 3.2500e-006 |
| i = -5.022042e-005 | WBOTC = -7.2641e-006 |
| j = 2.950450e-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 | 2626.57 | 0.00000 | 0.00000 |
| 1.0000 | 34.8005 | 2.97474 | 5144.92 | 2.97476 | 0.00001 |
| 4.5000 | 34.7829 | 3.28188 | 5337.10 | 3.28187 | -0.00001 |
| 15.0000 | 34.7456 | 4.26386 | 5909.07 | 4.26385 | -0.00000 |
| 18.5000 | 34.7381 | 4.60911 | 6097.18 | 4.60911 | 0.00000 |
| 24.0000 | 34.7299 | 5.16719 | 6389.28 | 5.16720 | 0.00001 |
| 29.0000 | 34.7251 | 5.68906 | 6650.53 | 5.68905 | -0.00001 |
| 32.5000 | 34.7226 | 6.06150 | 6830.71 | 6.06150 | 0.00000 |

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

