

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0811
CALIBRATION DATE: 08-Dec-09

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

COEFFICIENTS:

g = -1.082566e+000
h = 1.505902e-001
i = -3.522004e-004
j = 4.821545e-005

CPcor = -9.5700e-008
CTcor = 3.2500e-006
WBOTC = -7.3368e-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	2688.71	0.00000	0.00000
1.0001	34.7615	2.97174	5198.04	2.97175	0.00002
4.5000	34.7416	3.27837	5391.18	3.27836	-0.00001
14.9999	34.6988	4.25871	5966.61	4.25869	-0.00002
18.5000	34.6891	4.60331	6156.01	4.60331	-0.00001
24.0000	34.6778	5.16030	6450.25	5.16031	0.00002
29.0000	34.6706	5.68113	6713.57	5.68116	0.00003
32.4999	34.6647	6.05253	6895.07	6.05250	-0.00002

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

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

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

$$\text{Residual} = \text{instrument conductivity} - \text{bath conductivity}$$

