

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 3767  
CALIBRATION DATE: 12-Jan-11

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

## COEFFICIENTS:

g = -1.046427e+000  
h = 1.517544e-001  
i = -3.296963e-005  
j = 2.662162e-005

CPcor = -9.5700e-008  
CTcor = 3.2500e-006  
WBOTC = -8.4102e-006

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	2625.34	0.00000	0.00000
1.0000	34.7871	2.97371	5137.97	2.97373	0.00002
4.5000	34.7674	3.28056	5329.70	3.28054	-0.00002
15.0000	34.7244	4.26153	5900.42	4.26151	-0.00002
18.4999	34.7150	4.60637	6088.15	4.60640	0.00003
23.9999	34.7050	5.16389	6379.68	5.16389	0.00000
28.9999	34.6991	5.68527	6640.48	5.68526	-0.00001
32.5000	34.6954	6.05729	6820.34	6.05729	0.00000

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

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

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

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

