

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0470
CALIBRATION DATE: 01-Dec-10

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

COEFFICIENTS:

g = -1.047228e+000
h = 1.454905e-001
i = -3.601839e-004
j = 4.835366e-005

CPcor = -9.5700e-008
CTcor = 3.2500e-006
WBOTC = -7.6926e-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	2690.90	0.00000	0.00000
0.9999	34.8412	2.97788	5270.07	2.97783	-0.00005
4.4999	34.8208	3.28510	5467.74	3.28517	0.00007
15.0000	34.7770	4.26730	6055.98	4.26728	-0.00002
18.5000	34.7674	4.61258	6249.52	4.61258	-0.00000
24.0000	34.7564	5.17070	6550.11	5.17070	-0.00000
29.0000	34.7486	5.69248	6818.98	5.69249	0.00001
32.5000	34.7441	6.06482	7004.42	6.06482	-0.00000

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

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

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

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

