

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1804  
CALIBRATION DATE: 16-Dec-10

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

## COEFFICIENTS:

g = -9.771603e-001  
h = 1.385025e-001  
i = -2.121653e-004  
j = 3.948303e-005

CPcor = -9.5700e-008  
CTcor = 3.2500e-006  
WBOTC = 2.7581e-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	2658.82	0.00000	0.00000
0.9999	34.5784	2.95755	5330.20	2.95758	0.00003
4.5000	34.5584	3.26278	5532.16	3.26275	-0.00003
15.0000	34.5145	4.23849	6132.49	4.23848	-0.00001
18.5000	34.5048	4.58148	6329.67	4.58148	0.00000
24.0000	34.4937	5.13591	6635.66	5.13594	0.00003
28.9999	34.4867	5.65437	6909.10	5.65435	-0.00002

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

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

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

Residual = instrument conductivity - bath conductivity

