

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 1858  
CALIBRATION DATE: 21-Jan-12

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

## COEFFICIENTS:

g = -1.037836e+000  
h = 1.457903e-001  
i = -2.634965e-004  
j = 4.585666e-005

CPcor = -9.5700e-008  
CTcor = 3.2500e-006  
WBOTC = 4.6484e-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	2671.40	0.00000	0.00000
0.9999	34.6395	2.96228	5240.24	2.96225	-0.00003
4.4999	34.6186	3.26790	5435.94	3.26794	0.00005
15.0000	34.5744	4.24507	6018.01	4.24505	-0.00002
18.5000	34.5650	4.58862	6209.38	4.58861	-0.00001
24.0000	34.5546	5.14398	6506.48	5.14399	0.00001
29.0000	34.5485	5.66337	6772.14	5.66338	0.00001
32.5000	34.5449	6.03399	6955.27	6.03399	-0.00001

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

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

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

Residual = instrument conductivity - bath conductivity

