

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1869
CALIBRATION DATE: 28-Dec-10

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

COEFFICIENTS:

g = -1.052792e+000
h = 1.514497e-001
i = -7.269413e-005
j = 3.062067e-005

CPcor = -9.5700e-008
CTcor = 3.2500e-006
WBOTC = 5.1842e-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	2636.22	0.00000	0.00000
1.0000	34.6108	2.96007	5140.08	2.96008	0.00001
4.4999	34.5909	3.26554	5331.25	3.26553	-0.00001
14.9999	34.5474	4.24209	5900.29	4.24208	-0.00001
18.5000	34.5379	4.58540	6087.45	4.58540	-0.00001
24.0000	34.5273	5.14037	6378.09	5.14038	0.00001
29.0000	34.5214	5.65943	6638.11	5.65944	0.00001
32.5000	34.5179	6.02981	6817.40	6.02980	-0.00001

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

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

t = temperature[°C]; p = pressure[decibars]; δ = CTcor; ϵ = CPcor;

Residual = instrument conductivity - bath conductivity

