

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 2003
CALIBRATION DATE: 05-Dec-06

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

COEFFICIENTS:

g = -9.647277e-001
h = 1.342933e-001
i = -2.681850e-004
j = 4.179704e-005

CPcor = -9.5700e-008
CTcor = 3.2500e-006
WBOTC = 8.6935e-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	2684.18	0.00000	0.00000
1.0000	34.6601	2.96388	5413.28	2.96392	0.00004
4.5000	34.6405	3.26977	5619.12	3.26973	-0.00004
15.0000	34.5976	4.24761	6230.83	4.24758	-0.00004
18.5000	34.5887	4.59142	6431.75	4.59143	0.00001
24.0000	34.5785	5.14715	6743.47	5.14726	0.00011
29.0000	34.5721	5.66681	7021.84	5.66668	-0.00012
32.5000	34.5670	6.03741	7213.72	6.03746	0.00005

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

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

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

Residual = instrument conductivity - bath conductivity

