

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 4254
CALIBRATION DATE: 12-Dec-07

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

COEFFICIENTS:

g = -1.024770e+000
h = 1.520462e-001
i = -1.500340e-004
j = 3.662873e-005

CPcor = -9.5700e-008
CTcor = 3.2500e-006
WBOTC = 8.9558e-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	2597.08	0.00000	0.00000
1.0000	34.8802	2.98091	5129.47	2.98092	0.00001
4.4999	34.8601	3.28844	5321.90	3.28848	0.00004
15.0000	34.8163	4.27161	5894.18	4.27151	-0.00010
18.5000	34.8066	4.61722	6082.33	4.61717	-0.00005
23.9998	34.7949	5.17577	6374.40	5.17587	0.00010
29.0000	34.7874	5.69812	6635.51	5.69821	0.00010
32.5001	34.7815	6.07062	6815.32	6.07053	-0.00009

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

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

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

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

