

# Sea-Bird Electronics, Inc.

13431 NE 20th Street, Bellevue, WA 98005-2010 USA

Phone: (+1) 425-643-9866 Fax (+1) 425-643-9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 1869  
CALIBRATION DATE: 24-Jan-12

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

## COEFFICIENTS:

g = -1.054225e+000  
h = 1.519468e-001  
i = -2.568196e-004  
j = 4.464204e-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	2637.07	0.00000	0.00000
1.0000	34.6871	2.96597	5146.10	2.96601	0.00004
4.4999	34.6669	3.27201	5337.60	3.27196	-0.00004
14.9999	34.6219	4.25027	5907.58	4.25027	-0.00000
18.5000	34.6124	4.59423	6095.03	4.59423	0.00000
24.0000	34.6018	5.15023	6386.10	5.15025	0.00001
29.0000	34.5957	5.67024	6646.44	5.67024	0.00000
32.5000	34.5913	6.04118	6825.88	6.04117	-0.00001

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

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

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

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

