

# 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: 0361  
CALIBRATION DATE: 09-Jan-15

SBE 45 CONDUCTIVITY CALIBRATION DATA  
PSS 1978: C(35,15,0) = 4.2914 Siemens/meter

## COEFFICIENTS:

g = -9.820513e-001  
h = 1.378337e-001  
i = -1.182986e-004  
j = 2.840634e-005

CPcor = -9.5700e-008  
CTcor = 3.2500e-006  
WBOTC = 1.5603e-007

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	2670.34	0.00000	0.00000
1.0000	34.6494	2.96305	5346.52	2.96308	0.00002
4.4999	34.6293	3.26881	5549.05	3.26878	-0.00002
14.9999	34.5853	4.24625	6151.26	4.24624	-0.00001
18.4999	34.5750	4.58979	6349.09	4.58978	-0.00001
23.9999	34.5627	5.14505	6656.15	5.14506	0.00002
28.9999	34.5554	5.66436	6930.69	5.66438	0.00002
32.5000	34.5509	6.03492	7119.93	6.03491	-0.00002

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

$$\text{Conductivity} = (g + h * f^2 + i * f^3 + j * f^4) / (1 + \delta * t + \epsilon * p) \text{ Siemens / meter}$$

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

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

