

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: 0092
CALIBRATION DATE: 05-Feb-15

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

COEFFICIENTS:

g = -9.851285e-001
h = 1.510695e-001
i = -2.787593e-004
j = 4.499006e-005

CPcor = -9.5700e-008
CTcor = 3.2500e-006
WBOTC = 1.1539e-005

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	2556.85	0.00000	0.00000
1.0000	34.8664	2.97984	5127.25	2.97984	0.00000
4.5000	34.8464	3.28728	5321.58	3.28728	-0.00000
15.0000	34.8034	4.27020	5899.24	4.27020	0.00000
18.5000	34.7942	4.61575	6089.01	4.61576	0.00000
24.0000	34.7841	5.17437	6383.52	5.17436	-0.00000
29.0000	34.7787	5.69685	6646.83	5.69684	-0.00001
32.5000	34.7759	6.06974	6828.34	6.06975	0.00001

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

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

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

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

