

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0092
CALIBRATION DATE: 29-Jan-15

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

COEFFICIENTS:

g = -9.919765e-001
h = 1.521129e-001
i = -5.041039e-004
j = 6.028952e-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	2560.91	0.00000	0.00000
1.0000	34.8699	2.98011	5126.91	2.98010	-0.00001
4.5000	34.8498	3.28757	5321.14	3.28759	0.00002
15.0000	34.8064	4.27053	5898.45	4.27053	-0.00000
18.5000	34.7968	4.61606	6088.09	4.61606	0.00000
24.0000	34.7863	5.17466	6382.41	5.17465	-0.00001
29.0000	34.7800	5.69704	6645.48	5.69704	-0.00000
32.5000	34.7762	6.06979	6826.77	6.06979	0.00000

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

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

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

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

