

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0399  
CALIBRATION DATE: 01-May-15

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

## COEFFICIENTS:

g = -9.775020e-001  
h = 1.434572e-001  
i = -7.010615e-004  
j = 7.682607e-005

CPcor = -9.5700e-008  
CTcor = 3.2500e-006  
WBOTC = 6.9909e-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	2622.32	0.00000	0.00000
1.0000	34.7202	2.96853	5273.48	2.96858	0.00005
4.5000	34.7004	3.27487	5473.84	3.27485	-0.00002
14.9999	34.6580	4.25423	6069.19	4.25411	-0.00013
18.4999	34.6486	4.59851	6264.73	4.59851	0.00000
24.0000	34.6381	5.15504	6568.08	5.15523	0.00019
29.0000	34.6315	5.67545	6838.83	5.67536	-0.00009
32.5000	34.6265	6.04663	7021.52	6.03877	-0.00786

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

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

t = temperatur e[°C]; p = pressure[decibars];  $\delta$  = CTcor;  $\epsilon$  = CPcor;

Residual = instrument conductivity - bath conductivity

