

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: 0122
CALIBRATION DATE: 10-Mar-12

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

COEFFICIENTS:

g = -1.050315e+000
h = 1.315839e-001
i = -1.767553e-004
j = 3.096745e-005

CPcor = -9.5700e-008
CTcor = 3.2500e-006
WBOTC = -3.5355e-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	2828.08	0.00000	0.00000
0.9999	34.9748	2.98821	5540.63	2.98822	0.00001
4.4999	34.9539	3.29641	5747.43	3.29641	-0.00001
14.9999	34.9094	4.28181	6362.90	4.28180	-0.00002
18.4999	34.9000	4.62826	6565.33	4.62828	0.00002
24.0000	34.8897	5.18833	6879.63	5.18833	-0.00000
29.0000	34.8836	5.71210	7160.74	5.71210	-0.00000
32.5000	34.8801	6.08585	7354.58	6.08585	-0.00000

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

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

t = temperature[°C]; p = pressure[decibars]; δ = CTcor; ϵ = CPcor;

Residual = instrument conductivity - bath conductivity

