

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: 0340
CALIBRATION DATE: 07-Nov-12

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

COEFFICIENTS:

g = -1.053104e+000
h = 1.783903e-001
i = -4.365954e-004
j = 6.535166e-005

CPcor = -9.5700e-008
CTcor = 3.2500e-006
WBOTC = 1.3694e-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	2434.26	0.00000	0.00000
1.0000	34.9422	2.98570	4766.14	2.98568	-0.00002
4.5000	34.9216	3.29368	4944.07	3.29370	0.00002
15.0000	34.8777	4.27835	5473.53	4.27835	-0.00000
18.5000	34.8680	4.62449	5647.63	4.62448	-0.00001
24.0000	34.8570	5.18401	5917.97	5.18401	-0.00000
29.0000	34.8503	5.70726	6159.76	5.70727	0.00001
32.5000	34.8462	6.08061	6326.46	6.08061	-0.00000

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

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

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

Residual = instrument conductivity - bath conductivity

