

# 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: 0204  
CALIBRATION DATE: 24-Mar-16

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

## COEFFICIENTS:

g = -1.045969e+000  
h = 1.602145e-001  
i = -6.670238e-004  
j = 7.028045e-005

CPcor = -9.5700e-008  
CTcor = 3.2500e-006  
WBOTC = 2.5040e-005

BATH TEMP (° C)	BATH SAL (PSU)	BATH COND (S/m)	INSTRUMENT OUTPUT (Hz)	INSTRUMENT COND (S/m)	RESIDUAL (S/m)
22.0000	0.0000	0.00000	2564.41	0.00000	0.00000
1.0000	34.6128	2.96022	5025.24	2.96019	-0.00003
4.5000	34.5938	3.26579	5213.03	3.26582	0.00003
15.0000	34.5531	4.24273	5771.73	4.24276	0.00003
18.5001	34.5446	4.58621	5955.41	4.58620	-0.00001
24.0000	34.5356	5.14147	6240.60	5.14142	-0.00005
29.0000	34.5310	5.66082	6495.72	5.66085	0.00003
32.5000	34.5286	6.03147	6671.60	6.03153	0.00006

$f = \text{Instrument Output(Hz)} * \text{sqrt}(1.0 + \text{WBOTC} * t) / 1000.0$

t = temperature (°C); p = pressure (decibars);  $\delta = \text{CTcor}$ ;  $\epsilon = \text{CPcor}$ ;

Conductivity (S/m) =  $(g + h * f^2 + i * f^3 + j * f^4) / 10 (1 + \delta * t + \epsilon * p)$

Residual (Siemens/meter) = instrument conductivity - bath conductivity

