



Sea-Bird Scientific  
 13431 NE 20<sup>th</sup> Street  
 Bellevue, WA 98005  
 USA

+1 425-643-9866  
 seabird@seabird.com  
 www.seabird.com

SENSOR SERIAL NUMBER: 0455  
 CALIBRATION DATE: 17-Sep-19

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

COEFFICIENTS:

g = -1.008985e+000      CPcor = -9.5700e-008  
 h = 1.314859e-001      CTcor = 3.2500e-006  
 i = -4.560348e-004      WBOTC = 8.9947e-008  
 j = 5.127990e-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	2779.37	0.00000	0.00000
1.0000	34.7666	2.97212	5522.62	2.97213	0.00001
4.5000	34.7470	3.27883	5730.87	3.27882	-0.00001
15.0000	34.7048	4.25938	6350.07	4.25938	-0.00000
18.5000	34.6961	4.60414	6553.54	4.60415	0.00001
24.0000	34.6870	5.16151	6869.34	5.16152	0.00000
29.0000	34.6820	5.68279	7151.63	5.68279	-0.00000
32.5000	34.6776	6.05453	7345.95	6.05433	-0.00021

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

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

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

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

