

SEA-BIRD ELECTRONICS, INC.

1808 136th Place N.E., Bellevue, Washington, 98005 USA

Phone: (425) 643 - 9866 Fax (425) 643 - 9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 0087
CALIBRATION DATE: 05-Jun-09

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

COEFFICIENTS:

g = -9.991338e-001

CPcor = -9.5700e-008

h = 1.481980e-001

CTcor = 3.2500e-006

i = -1.531444e-004

WBOTC = 1.1421e-005

j = 3.578008e-005

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	2597.56	0.00000	0.00000
0.9999	34.8966	2.98216	5180.19	2.98218	0.00001
4.4999	34.8764	3.28983	5375.73	3.28982	-0.00001
15.0000	34.8332	4.27347	5957.15	4.27345	-0.00002
18.5000	34.8238	4.61926	6148.20	4.61925	-0.00000
24.0000	34.8131	5.17820	6444.73	5.17823	0.00003
29.0224	34.8049	5.70303	6710.85	5.70303	-0.00001
32.5402	34.7989	6.07762	6894.32	6.07761	-0.00001

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

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

