

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: 0219
CALIBRATION DATE: 23-Jul-09

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

COEFFICIENTS:

g = -1.028578e+000
h = 1.600699e-001
i = -6.294807e-004
j = 7.103727e-005

CPcor = -9.5700e-008
CTcor = 3.2500e-006
WBOTC = -2.4451e-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	2544.69	0.00000	0.00000
0.9999	34.6018	2.95936	5013.01	2.95947	0.00011
4.5000	34.5823	3.26481	5201.27	3.26473	-0.00008
15.0000	34.5409	4.24139	5761.84	4.24130	-0.00009
18.4999	34.5321	4.58471	5946.20	4.58469	-0.00001
23.9999	34.5218	5.13963	6232.38	5.13970	0.00007
29.0000	34.5158	5.65861	6488.31	5.65873	0.00012
32.5000	34.5126	6.02899	6664.66	6.02888	-0.00011

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

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

