

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1251
CALIBRATION DATE: 07-Dec-07

SBE 37 CONDUCTIVITY CALIBRATION DATA
PSS 1978: C(35,15,0) = 4.2914 Siemens/meter

COEFFICIENTS:

g = -1.032156e+000

CPcor = -9.5700e-008

h = 1.511074e-001

CTcor = 3.2500e-006

i = -1.440341e-004

WBOTC = -2.8251e-005

j = 3.711176e-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	2615.42	0.00000	0.00000
1.0000	34.7346	2.96965	5142.16	2.96964	-0.00001
4.5000	34.7139	3.27601	5334.84	3.27603	0.00002
15.0000	34.6706	4.25563	5908.22	4.25561	-0.00001
18.5000	34.6618	4.60008	6096.81	4.60007	-0.00001
24.0000	34.6525	5.15695	6389.70	5.15695	0.00001
29.0000	34.6477	5.67780	6651.72	5.67783	0.00003
32.5000	34.6451	6.04950	6832.38	6.04949	-0.00002

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

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

