

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0219
CALIBRATION DATE: 04-Aug-09

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

COEFFICIENTS:

g = -1.010200e+000

CPcor = -9.5700e-008

h = 1.550725e-001

CTcor = 3.2500e-006

i = 3.801211e-004

WBOTC = -2.4451e-005

j = 1.151896e-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	2544.48	0.00000	0.00000
1.0000	34.8118	2.97562	5034.22	2.97564	0.00003
4.5000	34.7922	3.28267	5223.19	3.28266	-0.00002
15.0000	34.7499	4.26433	5785.26	4.26430	-0.00003
18.5000	34.7409	4.60944	5970.03	4.60944	-0.00001
23.9999	34.7312	5.16735	6256.90	5.16739	0.00004
29.0000	34.7262	5.68922	6513.47	5.68923	0.00001
32.5000	34.7239	6.06170	6690.41	6.06168	-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

