

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0436
CALIBRATION DATE: 06-Nov-07

SBE19 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.20091445e-003
h = 6.12895421e-004
i = 9.14668678e-006
j = -6.63641368e-007
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.64762144e-003
b = 5.94607540e-004
c = 1.09964333e-005
d = -6.62844153e-007
f0 = 2499.535

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
1.0000	2499.535	1.0010	0.00102
4.5000	2700.677	4.4982	-0.00182
15.0000	3373.365	15.0009	0.00088
18.5000	3621.475	18.5013	0.00126
24.0000	4036.433	23.9989	-0.00106
29.0000	4441.461	28.9985	-0.00147
32.5000	4741.390	32.5012	0.00120

$$\text{Temperature ITS-90} = 1/\{g + h[\ln(f_0/f)] + i[\ln^2(f_0/f)] + j[\ln^3(f_0/f)]\} - 273.15 \text{ (}^\circ\text{C)}$$

$$\text{Temperature IPTS-68} = 1/\{a + b[\ln(f_0/f)] + c[\ln^2(f_0/f)] + d[\ln^3(f_0/f)]\} - 273.15 \text{ (}^\circ\text{C)}$$

Following the recommendation of JPOTS: T_{68} is assumed to be $1.00024 * T_{90}$ (-2 to 35 °C)

Residual = instrument temperature - bath temperature

Date, Offset(mdeg C)

● 06-Nov-07 -0.00

