

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0828  
 CALIBRATION DATE: 06-Nov-08

SBE 37 TEMPERATURE CALIBRATION DATA  
 ITS-90 TEMPERATURE SCALE

## ITS-90 COEFFICIENTS

a0 = -1.332809e-006  
 a1 = 2.843123e-004  
 a2 = -2.976710e-006  
 a3 = 1.725757e-007

| BATH TEMP<br>(ITS-90) | INSTRUMENT<br>OUTPUT | INST TEMP<br>(ITS-90) | RESIDUAL<br>(ITS-90) |
|-----------------------|----------------------|-----------------------|----------------------|
| 1.0000                | 573820.6             | 1.0000                | 0.0000               |
| 4.4999                | 491211.2             | 4.4999                | -0.0000              |
| 15.0000               | 314116.6             | 15.0000               | -0.0000              |
| 18.4999               | 272283.5             | 18.4999               | 0.0000               |
| 23.9999               | 218788.3             | 23.9999               | 0.0000               |
| 28.9999               | 180410.2             | 28.9999               | -0.0000              |
| 32.5001               | 158139.9             | 32.5001               | 0.0000               |

Temperature ITS-90 =  $1/[a_0 + a_1[\ln(n)] + a_2[\ln^2(n)] + a_3[\ln^3(n)]] - 273.15$  (°C)

Residual = instrument temperature - bath temperature

