

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0475  
CALIBRATION DATE: 01-Dec-10

SBE 37 TEMPERATURE CALIBRATION DATA  
ITS-90 TEMPERATURE SCALE

## ITS-90 COEFFICIENTS

a0 = -2.110475e-005  
a1 = 2.809639e-004  
a2 = -2.852563e-006  
a3 = 1.651035e-007

| BATH TEMP<br>(ITS-90) | INSTRUMENT<br>OUTPUT | INST TEMP<br>(ITS-90) | RESIDUAL<br>(ITS-90) |
|-----------------------|----------------------|-----------------------|----------------------|
| 0.9999                | 703581.5             | 0.9998                | -0.0001              |
| 4.4999                | 601499.6             | 4.5000                | 0.0001               |
| 15.0000               | 383213.5             | 14.9998               | -0.0002              |
| 18.5000               | 331776.1             | 18.5001               | 0.0001               |
| 24.0000               | 266106.7             | 24.0000               | 0.0000               |
| 29.0000               | 219075.2             | 29.0000               | 0.0000               |
| 32.5000               | 191822.4             | 32.5000               | -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

